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FOREWORD

121 Resolution 88 of the UNRRA Council authorises and requests the United Nations Relief and Rehabilitation Administration "to furnish to the United Nations reports on the work of the Administration and the progress made towards economic rehabilitation in the countries assisted by the Administration."

127 This paper is the thirty-ninth of a series which has been prepared by the Division of Operational Analysis, UNRRA European Regional Office. The papers are based mainly on information received from UNRRA Missions and from the Governments to which they are accredited. Because of the difficulties in obtaining adequate economic data, the accounts given are neither final nor complete. Economic Rehabilitation in the Ukraine was written by Mary Redmer. V.I. Wolpert assisted with translations and statistical material. A complete list of Operational Analysis Papers already issued appears at the end of this paper.

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I INTRODUCTION

101 The Ukrainian Soviet Socialist Republic (the Ukraine) is one of the U.S.S.R.'s sixteen constituent Union Republics. Situated in the south-western corner of the Soviet Union, the Ukraine is bordered on the south by the Black and Azov Seas and the Crimea (part of Russia); its western border touches the frontiers of Rumania, Hungary, Czechoslovakia, and Poland as well as the Moldavian Soviet Socialist Republic. Towards the north the Ukrainian S.S.R. verges on two other Soviet Republics: Byelorussia and Russia; and it is the Russian neighbourhood of the Don river which forms the Ukraine's eastern border.

101 135 In economic development and in population the Ukraine is second greatest of the Soviet Republics. It has a fertile soil, a mild humid climate, and is rich in deposits of coal, oil, iron, manganese and salts, as well as in building materials. It has four main rivers: the Dnieper (third largest in Europe), the Dniester, the Bug, and the Donets (a tributary of the Don), which are navigable and are also useful reservoirs of power.

433 162 Before 1941 the Ukraine contained more than one-fifth of the inhabitants of the entire Soviet Union. Its industry produced 54 per cent. of the coal, 60 per cent. of the pig iron, 48 per cent. of the steel, and 35 per cent. of the manganese ore turned out in the whole U.S.S.R.; it manufactured railway engines and cars, tractors, turbines, harvester combines, and mining and agricultural machinery for all parts of the Soviet Union. "It also produced artificial fertilizers, soda, glass and cement. The output of the sugar, meat-packing, flour-milling, distilling, and dairy industries reached great dimensions. Fishing was developed in the Black Sea and Azov Sea. The Dnieper Power Station, 361 the largest in Europe, was famous throughout the world. The cities of the Ukraine, both old and new, developed rapidly; during the past 25 years 77 new cities and 285 industrial settlements were built."[1]

241 Agriculture also was highly developed. In 1937-38 Ukrainian farms accounted for nearly one-fifth of the grain, one-sixth of the potatoes, and two-thirds of the sugar beet produced in the Soviet Union. The Ukraine also had a large proportion of the total Soviet Union livestock. Millions of head of cattle, pigs, sheep, and poultry were raised. Ukrainian agriculture was highly mechanized; before the war there were 90,000 tractors and 31,000 harvesting combines operating in the fields.

Area and Population

131 In January 1939 the Ukrainian Republic had an area of about 469,700 square kilometres including 8,000 square kilometres in its

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1 The Sixteen Soviet Republics, Soviet News, London, 1945.

131 constituent autonomous republic, the Moldavian A.S.S.R.[1] On November 1, [728] 1939, 88,000 square kilometres were added when Western Ukraine, which in 1920 had been annexed by Poland, was re-joined to the Ukrainian Soviet Republic.

131 728 Another 21,300 square kilometres were added in June 1940 when Bessarabia (annexed by Rumania in 1918) and Northern Bukovina (another part of Rumania) also were incorporated, making the Ukraine's total area then about 579,000 square kilometres. However, a small decrease occurred in August 1940 when the Supreme Soviet of the U.S.S.R. granted the petition of the Moldavian people in Bessarabia to join with a part of the Moldavian Autonomous Republic to form the Moldavian Soviet Socialist Republic.

Before the outbreak of the German-Soviet war the area of the Ukraine was 575,000 square kilometres (2½ per cent. of the territory of the Soviet Union); and the population was over 40 millions. After the addition of the Transcarpathian region in June 1945, the Ukraine's total area was 587,700 square kilometres; it is approximately the same today. The following table summarizes the changes in the area and population of the Ukrainian S.S.R. from 1939 to June 1941.

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635 642 The U.S.S.R. is composed of sixteen Union Soviet Socialist Republics. Within this framework there exist a number of autonomous provinces, national regions and autonomous Soviet Socialist Republics. Before August 1940 the Ukrainian S.S.R. included one autonomous republic, the Moldavian A.S.S.R. which was subsequently given full status and became the sixteenth Union Republic. According to Professor Trainin, the Soviet authority on legal questions, the main distinction between autonomous and union republics is that the latter are guaranteed the right of free secession from the U.S.S.R. - a right which is not incorporated in the constitutions of the autonomous republics. Another difference regarding status is that whereas in the Soviet of Nationalities (one of the two chambers of the Supreme Soviet of the U.S.S.R.) every Union republic is represented by 25 deputies, the autonomous republic is represented by only 11.

TABLE I

Area and Population of the Ukrainian S.S.R., 1939-40

	Area (thousand square kilometres)	Population (millions)
131		
161 Area Ukrainian S.S.R. January 1939	469.7	30.96
Territories added:		
Western Ukraine (added November 1939)	88.0	8.0
Part of Bessarabia	15.3	1.05
Northern Bukovina (both added June 1940)	6.0	0.5
	579.0	40.51
Territories transferred:		
Part of the Moldavian A.S.S.R. (together with part of Bessarabia, created the Moldavian S.S.R., August 1940)	3.9	0.31
Totals August 1940	575.1	40.20

Source : Territory and Population of the U.S.S.R., S.Sulkevich, Moscow, 1940.

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162 In June 1945 the Transcarpathian Ukraine was ceded by Czechoslovakia to the Ukrainian S.S.R. This transfer added about 12,600 square kilometres area and a population of about 750,000. The details of the various cessions of territory are given below.

Soviet-Polish Frontiers

In the autumn of 1939, after the collapse of the Polish State and the occupation of Western Poland by German troops, the Soviet Government decided to take under its protection the life and property of the population of Eastern Poland, that is, Western Ukraine and Western Byelorussia, inhabited mainly by Ukrainians and Byelorussians. When they were seized by Poland in 1920, these territories were ethnographically and economically part of the Soviet Union. Their return to the Soviet Union increased the area and population of the Byelorussian S.S.R. by 108,000 square kilometres and 4.8 million inhabitants; and of the Ukraine, by 88,000 square kilometres and 8 million people.

In August 1945, a slight adjustment of frontiers took place between Poland and the Soviet Union. A treaty was signed which, in accordance with the decision of the Crimea Conference in February 1945, established the Polish-Soviet boundary roughly along the Curzon Line, with some deviations in favour of Poland. As a result of this, Poland was given back a small strip of the territory which had been incorporated in the Soviet Union in 1939.

000 Soviet Union in 1939.

101 In the years before its reunion with the Ukrainian S.S.R. Western Ukraine was relatively undeveloped, as compared with the industrial and agricultural expansion which was taking place in the Ukraine itself. The backwardness of Western Ukraine before its incorporation into the Soviet Union is shown by the following table, which compares per person output in 1938 of the Ukrainian S.S.R. with that of Western Ukraine.

TABLE II

433 Per Person Output of Western Ukraine and of Ukrainian S.S.R., 1938

	Western Ukraine	Ukrainian S.S.R.
Electro power (kilowatt hours)	13.05	305
Cement (kilograms)	12.2	39.7
Bricks (pieces)	17.0	50.3
Sugar (kilograms)	5.9	58.9
Soap (kilograms)	0.5	2.58

Source : Planned Economy, State Planning Commission, Moscow, 1940.

Transfer to the U.S.S.R. of Bessarabia and Northern Bukovina

728 On June 26, 1940, the Soviet Government communicated with the Rumanian Minister in Moscow concerning Bessarabia[1]. In 1918, said the communication, Rumania, "taking advantage of the military weakness of Russia....(seized) a part of her territory, namely, Bessarabia, which is principally occupied by Ukrainians..." The Soviet Government, never having recognized any justice in Rumania's claims to Bessarabia, demanded the immediate return of this territory to the Soviet Union. The communication also stated that "... the return of Bessarabia is organically connected with the question of the return to the Soviet Union of that part of the Bukovina the majority of whose population is connected with the Soviet Union not only through the community of their historic destinies but through the similarity of their language and national Constitutions".

It was therefore proposed that Northern Bukovina, as well as Bessarabia, should be given to the Soviet Union, and that the transfer should take place immediately. On June 27, 1940, after the Rumanian Government's acceptance of the Soviet Proposals, Bessarabia and Northern Bukovina were re-joined to the Ukrainian Republic. The total area of these two ceded territories was 50,400 square kilometres, of which 21,300 were added to the Ukraine, and 29,100 square kilometres were incorporated into the newly created Moldavian S.S.R.

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1 The Bulletin of International News, Royal Institute of International Affairs, London, July 13, 1940.

Moldavia

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648 The Moldavian Soviet Socialist Republic was created on August 2, 1940 by the decree of the Supreme Soviet of U.S.S.R. This Republic consists of a part of the former Moldavian Autonomous S.S. Republic and of a section of Bessarabia incorporated into the Soviet Union.
[131
161] The creation of this new Union Republic decreased the Ukrainian S.S.R. by 3,900 square kilometres and a population of 310,000 persons[1].

The Transcarpathian Ukraine[2]

928 In June 1945 an agreement was signed in Moscow between the governments of the U.S.S.R. and the Czechoslovak Republic that the Transcarpathian Ukraine "...which on the basis of a pact of September 10, 1919, concluded at St.Germain-en-Laye, entered the Czechoslovak Republic with the rank of an Autonomous Republic, will, according to the wish manifested by the population of the Carpatho-Ukraine and on the basis of the friendly agreement of both high contracting parties, unite with its longstanding motherland, the Ukraine, and is included in the Ukrainian Soviet Socialist Republic. The frontier between Slovakia and the Carpatho-Ukraine, existing since September 29, 1938, will, with modifications described, become the frontier between the U.S.S.R. and the Czechoslovak Republic..."

Article II of the protocol appended to the Pact said that:

"Persons of Ukrainian and Russian nationality living in Czechoslovak territory have the right to opt for Soviet citizenship until January 1, 1946... Czech and Slovak nationals residing or having their permanent domicile in the territory of the Carpatho-Ukraine have the right to opt for Czechoslovak nationality during the time until January 1, 1946".[3]

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311 On January 1, 1935, the area of the Transcarpathian Ukraine was 12,617 square kilometres. In 1937 about half of this was covered by forests and woods; roughly 239,000 hectares were arable, and about 328,000 hectares were devoted to vineyards, market gardens, and permanent meadows and pastures.

161 As at December 1, 1930, the population of the Transcarpathian Ukraine was 725,357, an increase of nearly 121,000 over February 1921.[4]

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1 Territory and Population of the U.S.S.R., S.Sulkevich, Moscow, 1940.

2 Called by the Czechs, Sub-Carpathian Rus, or Carpatho-Ukraine.

3 New York Times quoted by Voices of History (1945-46), Gramercy Publishing Company, New York.

4 Statistical Handbook of Czechoslovak Republic, London.

728 The progress in construction and rehabilitation which has taken place
178 since the incorporation of this region into the Ukraine was revealed at a meeting of the Soviet of Nationalities on October 16, 1946, when the representative of the Transcarpathian Ukraine summed up the achievements in 1946. Nearly 300 enterprises had been restored, and nine machine and tractor stations had been set up to assist the peasants in working
[212 the fields. Much had been done in 1946 to abolish illiteracy; there
871] were opened over 100 schools, including 75 elementary, seven technical, 27 secondary, four music schools for children, and one school for surgeons' assistants and midwives.

453 At the end of December it was stated that 35 new factories had started functioning in the Transcarpathian Region in 1946[1]. Moreover, as compared with 1945 when there was not a single coal mine, 8 mines were working in 1946. There had also been definite progress in building up consumer goods industries. A clothing and a shoe factory had begun working in Vinogradov, and a knitted goods mill in Mukachevo. Some 200 light industries have been opened in various parts of the region.

Population of the Ukraine

162 The Ukraine is inhabited largely by Ukrainians, and also by Russians, Jews, and Poles. Most of the population is literate, and in 1939 there were many technical and vocational schools, as well as scientific research institutes and about 40,000 libraries.

At the census of January 17, 1939 the Ukrainian S.S.R. had 30,960,221 inhabitants; an increase of 6.6 per cent. as compared with December 1926. The greatest increase had occurred in the towns, largely as a result of the migration of country people to new industries. Thus from 1926 to 1939 the urban population more than doubled (5,373,553 to 11,195,620) while the number of rural inhabitants decreased by 16½ per cent. (23,669,381 to 19,764,601).

000 The same was true for the entire Soviet Union. From 147,027,915 in December 1926, its total population increased by 15.9 per cent. to 170,467,186 in January 1939, the urban population having grown from 26.3 million to 55.9 millions; and the rural population having fallen from 120.7 million to 114.5 million.

162 The principal cities of the Ukraine with their population on
[361] January 17, 1939, are Kiev, the capital (population, 846,293); Kharkov, capital of the Ukraine before 1934 (833,432), the part of Odessa on the Black Sea (604,223), Dniepropetrovsk on the Dnieper River (500,662), Stalino, industrial centre of the Donets Basin (462,395), and Nikolayev (167,108).

In January 1939 the urban population of the Ukraine was 36.2 per

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1 Soviet Monitor, London, December 29, 1946.

162 cent. of the total, as compared with 32.8 per cent. for the entire Soviet Union. Next to the Georgian Soviet Socialist Republic, the Ukraine has a higher percentage of urban population than any other Union Republic.

The German-Soviet War

726 On June 22, 1941, the German armies, supported by their satellites, including the Rumanians and the Hungarians, attacked the Soviet Union on a 1,500 mile front from the Arctic Ocean to the Black Sea. Nearly six weeks later the Germans started their main thrust against Kiev, the capital of the Ukrainian Soviet Socialist Republic; on September 21, after a fierce struggle, the Soviet troops evacuated the city. It was another two months before the Germans reached Kharkov and Rostov.

727 [725] For the second time in this century the Ukraine was subjected to occupation and devastation by the Germans. However, the Soviet policy of scorching the earth in retreat had aggravated normal military destruction; and in addition, the Ukrainians conducted heroic guerilla warfare against the enemy occupation forces. As a result, the Germans found the fruits of conquest "rather disappointing"[1] For example, in the Ukraine it was possible in the autumn of 1941 to carry out only a small fraction of the average sowing. In the western part of the Ukraine, very few industrial plants remained intact; the Nikolayev naval yards, the Dnieper dam and power station, and the metallurgical plants of the Dniepropetrovsk district were all either crippled or destroyed.

726 The German occupation of the Ukraine lasted nearly three and a half years. The Soviet victory at Stalingrad early in 1943 was the turning point of the war and the beginning of the big Soviet offensives.

In the winter campaign of 1943-44 the Soviet troops won important victories in the Ukraine west of the Dnieper, completed the liberation of the Kiev, Dniepropetrovsk, Zaporozhie and Zhitomir regions and almost the whole of the Rovno and Kirovograd regions, as well as of a number of districts in other areas.[2] In April and May 1944 they liberated Odessa, and in August, Western Ukraine. The liberation of the whole Ukraine was completed by November 1944.

727 The years of hard fighting took a very heavy toll all along the western front of the Soviet Union. The Ukrainian S.S.R. sustained enormous losses.

War Losses of Population

At the Kiev trial of German war criminals in January 1946 it was disclosed that more than four million Soviet citizens had been murdered

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1 The Russian Campaigns of 1941-43, W.E.D.Allen and Paul Muratoff, Penguin Books, London, 1944.

2 Soviet War News, London, February 24, 1944.

727 by the German invaders in the Ukraine, and more than two million had been abducted to slavery in Germany. Of these so deported, a considerable number perished in captivity[1].

The figure of four million Soviet citizens murdered in the Ukraine does not clearly indicate whether all of them were Ukrainians or whether a certain percentage came from other parts of the Soviet Union. No figures have been revealed showing the number of the Ukrainians killed at the front against the German armies and their satellites. However, a comparison of the pre-war and present electorate figures for the Ukraine gives some indication of the decrease, at least of the adult population. On December 12, 1937, the Ukrainian electorate was about 17,540,000; in 1939 this number was increased by the addition of Western Ukraine, which on March 24, 1940, had more than five million voters. But nearly seven years later, in the elections of February 1947, despite the fact that part of Bessarabia, Northern Bukovina, and the Transcarpathian Ukraine also had been added, the total electorate in the Ukrainian S.S.R. was only 21,545,000.

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Damages to Industry and Agriculture

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433 The damage which the Germans inflicted on the industry and farming of the Ukrainian and Byelorussian Republics was tremendous, and far exceeded any comparable destruction in Western Europe.

[362] In the Ukraine the Germans destroyed or burned down 714 towns and more than 28,000 hamlets and villages, destroyed more than two million buildings and 540,000 outbuildings, and rendered about 10 million persons homeless (one-fourth of the Ukrainian population)[2].

Agriculture, animal husbandry, and industry were devastated. The coal mines were flooded. Over 16,150 industrial enterprises employing more than two million workers were stripped of machinery and the buildings heavily damaged or destroyed. The Germans wrecked or took away 127,800 electric motors and 81,600 metal-cutting lathes, destroyed railway lines and stations, and post and telegraph offices[2].

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241 Tremendous damage was done to Ukrainian agriculture. The Germans ruined and plundered collective farms, state farms and machine and tractor stations.

Millions of hectares of planned fields were destroyed and over 56,000 tractors wrecked. Nearly 1,900,000 agricultural machines and 30,000 automobiles and other motor vehicles were destroyed or taken to Germany[3].

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1 Soviet News, London, June 29, 1946.

2 Soviet Monitor, London, February 8, 1947.

3 Letter to UNRRA from Ukrainian Government Department of UNRRA Supplies, April 6, 1946.

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[281] Seven and a half million head of cattle, 3.3 million horses, 9.3 million pigs, 7.3 million sheep and 59.4 million fowls were killed or taken away[1]. The invaders also stole from the collective farms and from private citizens of the Ukrainian S.S.R. over 12 million tons of farm products, including 9½ million tons of grain and flour[2].

The rehabilitation and rebuilding of liberated areas began at once whilst the war was still on; but although the Ukrainian S.S.R. received great assistance from other republics of the Soviet Union, it must be borne in mind that important economic regions of other republics of the Soviet Union were also devastated by the war.

According to the report on material damage issued by the U.S.S.R.'s Extraordinary State Commission for Ascertaining and Investigating Crimes of the German-Fascist Invaders, the damage caused to the national economy of the U.S.S.R. and to the individual residents of villages and towns is estimated at more than 679,000 million roubles in terms of 1941 prices.

The damage to the Ukrainian Soviet Republic alone is estimated at 285,000 million roubles[3].

Thus according to the statement of the Soviet State Commission, the damages to the Ukrainian S.S.R. are about 40-42 per cent. of the total damages to the Soviet Union.

Damage caused to the Ukraine by the German invasion is estimated by the Ukrainian Paper Suchasne I Maibutne (Present and Future) at 100,000 million dollars[4].

Destruction of Ukrainian Cities

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361 Following are summaries of the destruction which occurred in some of the most important of the Ukraine's cities.

Kiev (Population in 1939: 846,293).

According to the report of the Extraordinary State Commission, the material damage caused by the German invaders in Kiev was as follows:

They destroyed 940 buildings of state and public institutions and

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1 Soviet Monitor, London, February 8, 1947.

2 Letter from Ukrainian Government Department of UNRRA Supplies, April 6, 1946.

3 Soviet News, London, September 18, 1945.
(The official exchange value in March 1947 was 5.40 roubles equal one U.S. dollar; 21.36 roubles equal one pound sterling).

4 Soviet Monitor, TASS (Soviet News Agency) London, July 11, 1946.

727 361 ,742 municipally owned houses (more than 22 million square feet of housing space) and 3,600 privately owned houses comprising 5½ million square feet of space.

[361] As a result more than 200,000 inhabitants of Kiev have been made homeless.

The Germans gutted Kiev's industrial plants of their equipment and shipped it to Germany. They destroyed the buildings of industrial enterprises including the machine-building plants "Bolshevik" and "Red Excavator", which had supplied industry, agriculture and transport with machinery, implements, and spare parts.

They blew up the textile mills, a spinning and knitting mill, the Gorky clothing factory, the first, fourth and eighth shoe factories, and other plants; blew up, destroyed or burned down the electric-power stations, the trolley cars and trolley buses, the water supply system and the drainage system. They destroyed mechanized bakeries and other establishments.

[368] The very important railway junction Kiev-Darnitza was destroyed with all its tracks, equipment, and installations as well as all station buildings and the depot at the station Kiev I.

City of Kharkov (Population in 1939: 833,432).

In connection with the third anniversary of the liberation of Kharkov, "the second capital of the Ukraine", the following figures on destruction and the extent of rehabilitation have been made known.

727 361 362 Before the war Kharkov had 41 million square feet of housing floor space. The Germans destroyed about half of all the flats. In the three years since liberation, six million square feet of housing floor space have been restored. The people of Kharkov have also restored 293 big plants and factories, including the famous tractor works, an electro-mechanical plant, a turbo-generator works and machine tool, and agricultural implements and other plants[1].

Dniepropetrovsk (Population in 1939: 500,662).

In this city 30 per cent. of the homes, 80 per cent. of the industry, and 70 per cent. of schools and other cultural institutions were destroyed. The UNRRA Mission reports that reconstruction has been very slow, and is hampered by shortages of food, shelter and equipment. In 1946 many of the residents of Dniepropetrovsk were still living in huts contrived of straw and clay, under a tar paper roof.

Kremenchug (Population in 1939: 89,553).

In April 1946, when members of the UNRRA Mission to the Ukraine

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1 Soviet Monitor, London, September 12, 1946.

727 361 362 first visited Kremenchug, they reported it as over 90 per cent. destroyed. "About 50,000 inhabitants have returned and are living in dugouts, cellars, and rubble shacks. Reconstruction is progressing slowly because of the shortage of materials. The only industries operating are a small machine shop for bridge repair parts, a textile factory, and one wing of a cigarette factory which happened to escape destruction. One bakery is being repaired... All grain elevators and flour mills, which constituted the chief pre-war industry, are completely destroyed."

Poltava (Population in 1939: 130,305).

In April 1946 the UNRRA Mission reported Poltava about 80 per cent. destroyed. "About 100,000 of the inhabitants have returned and are living under conditions only slightly better than Kremenchug. On the main street only one building is intact. The Mayor estimated that reconstruction would take at least fifteen years. The locomotive repair shop and a stocking factory are the only industries operating two years after liberation."

Other Cities

In Zaporozhie (population in 1939: 289,188) 75 per cent. of the homes and virtually all industry were destroyed[1]. Stalino, the industrial and mining centre of the Donets Basin, has been described as a shadow of its former self. Its pre-war population was 510,000. During the war about 100,000 of the people were driven into slavery by the Germans. Another 80,000 men, women, and children were thrust into one of the mines to die. Seventy-five per cent. of all the buildings in the city were destroyed; and of these only 30 per cent. were in a condition to be restored. All the mines in the area were flooded; and from one pit alone over 3,300,000 tons of water had been pumped by August 1946[2].

The Ukraine's Application for UNRRA Assistance

727 648 457 In the summer of 1945 the government of the U.S.S.R. transmitted to the Director General of UNRRA a request for assistance in rehabilitating those areas of the Soviet Union which had suffered most heavily because of the war and the German occupation. In August 1945 at the Third Session of the UNRRA Council, the Soviet delegate strongly requested that 700 million U.S. dollars be allocated for relief work in the Ukrainian and Byelorussian Soviet Republics. At the same Council Session the applications of Byelorussia and the Ukraine for membership in UNRRA were unanimously accepted, and the two republics were requested to send delegates to the Third Council meetings.

In December 1945 agreements were signed between UNRRA and the governments of the Byelorussian and Ukrainian Republics providing for

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1 UNRRA Mission to the Ukraine, Kiev.

2 Soviet News, London, August 22, 1946.

727 relief and rehabilitation supplies to be delivered until such time as
459 the two republics would be able themselves to pay with suitable means
648 of foreign exchange for their own imports[1].

727 The UNRRA-Ukrainian Agreement provided for a programme of supplies
439 amounting to 188 million U.S. dollars (approximately five dollars per head
648 of population), to be used for food, clothing, medical, agricultural, and industrial supplies. The agreement stipulated that UNRRA would attempt to deliver the bulk of these supplies to the Ukraine before June 30, 1946; however, because of procurement and transport difficulties, this early completion of the programme proved impossible. On May 30, 1946, therefore, the UNRRA-Ukrainian Agreement was extended to the end of 1946.

The schedule of supplies to be shipped has changed somewhat since the original programme was decided. As it now exists, about 53 per cent. (by value) of the total supplies are foodstuffs; 27 per cent. industrial supplies, and nearly 9 per cent. clothing. Supplies for the rehabilitation of agriculture will amount to 17,088,000 dollars, the greater part of which has been allocated for seeds. The following table shows by value the UNRRA programme of supplies for the Ukraine, as at March 21, 1947. A more detailed summary will follow in later sections of this report.

TABLE - III

UNRRA Programme of Supplies to the Ukrainian S.S.R.
(thousand U.S. dollars)

Food, feed, soap	100,189
Clothing, textiles, footwear	16,856
Medical and sanitation supplies	2,326
Agricultural rehabilitation	17,088
Industrial rehabilitation	51,591
Total	188,050

Source : UNRRA Headquarters, Washington.

In March 1946 a small UNRRA Mission arrived in the Ukraine and established headquarters at Kiev. In subsequent months, some of the mission members have made many visits to various parts of the republic in order to observe the distribution of UNRRA supplies. They report that gigantic efforts are being made to restore the economy, but emphasize the discouraging fact that UNRRA assistance with machinery and other rehabilitation supplies is small in comparison with the tremendous destruction everywhere. The main UNRRA contribution has

1 UNRRA aid to Byelorussia will be dealt with in a future paper.

727 439 648 been food supplies, which in many Ukrainian towns constituted the only food to be seen in shops in 1946. For fats and oils particularly the Ukrainian population has been entirely dependent on UNRRA aid.

The U.S.S.R.'s Five-Year Plan, 1946-50

727 649 UNRA assistance to the Ukraine has been of necessity limited in scope and short-term in nature. Long after relief shipments are ended - and they are now all but complete - the Ukraine will still be working to rebuild its factories, cities, and farms. The main task of rehabilitation is therefore a long-term one, and depends upon long-range measures.

727 185 On March 18, 1946, the Supreme Soviet of the U.S.S.R. adopted a Five-Year Plan, 1946-50, for the rehabilitation and development of the national economy of the Soviet Union. This plan is the fourth of a series of Five-Year Plans[1] designed to increase the productivity of Soviet farming and industry, and in general to raise the standard of living of the whole population. As stated by the Supreme Soviet of the U.S.S.R., the principal aims of the Five-Year Plan in 1946-50 are to rehabilitate the devastated regions of the country, to recover the pre-war level in industry and agriculture, and then considerably to surpass that level.

[652] The new Five-Year Plan provides that nearly one-third of the capital investments for the entire Soviet Union in 1946-50 (49,500 million roubles out of a total of 250,300)[2] are to be spent on the restoration of the Ukraine. Of this 49,500 million, 5,469 million will be used for works under the Ukrainian Republic's jurisdiction.

361 727 362 In the next five years all the destroyed cities of the Ukraine - particularly Kiev, Kharkov, Chernigov, Odessa, Dniepropetrovsk, Stalino, and Zaporozhie - are to be rebuilt and their municipal services restored. Housing is to be replaced as speedily as possible; in 1946-50, 175,120,000 square feet of state-owned housing are to be built, of which 12.65 million square feet are to be made available by local Soviets. The amount of privately owned housing to be built before 1950 is fixed at 36.3 million square feet.

241 185 Also under the Five-Year Plan Ukrainian agriculture is to be rehabilitated; the crop area for 1950 is planned at 30.5 million hectares. By 1950 the Ukraine is scheduled to be producing about 20 per cent. of the grain harvested in the U.S.S.R. (approximately the same tonnage as in pre-war years); 60 per cent. of the sugar beet (about 6 per cent. more than pre-war); and the potato harvest is fixed for 23 million tons, 1½ millions more than in 1940.

000 Industry is to be revived; railroads and other forms of transport

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1 First Five-Year Plan, 1929-32; second, 1933-37; third, 1938-42.

2 Estimated at 1945 prices.

727 Industry is to be revived; railroads and other forms of
433 transport are to be rebuilt; the mining of coal is to regain and then to outstrip the pre-war output; the production of machinery and equipment for both light and heavy industry is to be restored; and to do this, iron and steel production is to be increased until it surpasses pre-war. War damaged power stations are to be rehabilitated, and additional ones are to be constructed, particularly in smaller communities.

[185] Altogether the output of industrial enterprises in the Ukrainian S.S.R. in 1950 is envisaged at 9,200 million roubles, of which the output of state industries under local jurisdiction and of industrial co-operatives is estimated to comprise 3,100 million roubles[1].

The volume of industrial production in the whole U.S.S.R. in 1950 - that is, the last year of the Five-Year Plan - is fixed at 205,000 million roubles (in 1926-27 prices). Compared with 138,500 million roubles in 1940, this represents an increase in industrial output of 48 per cent.

727 Particular stress in the Five-Year Plan is laid on the development
433 of the Western Ukraine and the Transcarpathian Region. Lvov, the main
361 city of the Western Ukraine, is to be developed into a major industrial centre, where there are to be built and put into operation an automobile assembly plant, electrical, telephone, and telegraph-equipment manufacturing plants, a glass works, a knitting mill, and food processing plants.

In the Transcarpathian Region, new light industry plants are to be constructed, and the mining of brown coal (lignite) is to be organized and extended. Provision is to be made for the rehabilitation and development of the woodworking and wood chemical industries and of farming, particularly fruit-growing, viticulture, livestock breeding and apiculture, [652] as well as of the food processing industries. The farms of the Transcarpathian Region are to be given considerable state assistance in the form of agricultural machines, fertilizers, and credits.

000 A more detailed discussion of the Five-Year Plan in connection with farming and the various industries follows in later sections of this report.

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[475] It must be remembered that a number of enterprises although situated in the Ukrainian Republic are not under the Republic's jurisdiction, but under the jurisdiction of the Soviet Union Government.

II FARMING IN THE UKRAINE: PRE-WAR AND PRESENT

241 453 The Ukraine - famous for its mild climate and rich black soil - has always assumed a role of considerable importance in the agricultural production of the Soviet Union. For example in 1937-38 it produced one-fifth of the grain, two-thirds of the sugar-beet, and one-sixth of the potatoes harvested in the whole U.S.S.R. The chief grain crops of the Ukraine are wheat, rye, barley, oats, maize and millet. A considerable amount of sunflower seed is produced for processing into oil; small quantities of linseed and mustard seed are also produced for the same purpose. Other industrial crops, particularly flax, hemp, a little cotton and the rubber-bearing dandelion, "kok-sagyz" (discovered in 1931), were also cultivated extensively in the Ukraine before the war.

The following table shows the area and production of the principal Ukrainian crops in 1928, 1932 and 1937; figures for production in the entire Soviet Union are included for comparison.

TABLE IV

Ukraine: Pre-War Agricultural Production
(area in million hectares, production in million metric tons)

	Ukrainian S.S.R.		Entire Soviet Union
	Area	Production	Production
Wheat			
1928	3.1	3.34	22.11
1932	5.743	5.6	20.31
1937	6.433	10.08	46.86
Other grain			
1928	16.6	10.55	50.73
1932	12.381	9.06	49.48
1937	11.761	12.69	73.43
Sugar beet			
1928	.647	8.42	10.13
1932	1.174	4.28	9.645
1937	.817	14.44	21.86
Cotton			
1928	nil	nil	.824
1932	.181	.03	1.28
1937	.224	.12	2.58
Potatoes			
1928	1.4	10.21	46.38
1932	1.071	7.72	43.07
1937	1.338	11.9	65.63

Source: Compiled from Socialist Construction, Moscow, 1936 and 1939; Sown Areas of the U.S.S.R., Moscow, 1939,; and Socialist Agriculture, Moscow, 1939.

311 241 Despite a certain reduction in the area under cultivation in the Ukraine, (25,124,900 hectares in 1937 as compared with 26,438,400 in 1932), production rose considerably, reflecting great progress in the [407] mechanization of agriculture. The number of tractors increased from [475] 51,300 in 1932 to 83,900 in 1937. The number of harvesting combines increased in the same period from 4,900 to 26,700. The number of Machine and Tractor Stations grew from 657 to 958. The mechanization of agriculture in the Ukrainian S.S.R. is shown in the following table, which compares the output of energy from draught animals with the energy derived from machines, both in the Ukrainian Republic and in the entire Soviet Union. (It should be noted that, according to Soviet practice, the output of energy is measured in kilowatt hours.)

TABLE V

Output of Energy in Agriculture, 1938
(million kwh)

	Ukrainian S.S.R.	Total Soviet Union
[407] Energy from machines	4,211	19,304.2
379] Energy from draught cattle	1,662	14,667.5
Total output of energy in agriculture	5,873	33,971.7

Source : Planned Economy XII, Moscow, 1940.

[178] As the table shows, the percentage of mechanization in the Ukraine was greater than in the entire Soviet Union.

Agricultural Development of the Incorporated Territories

311 425 723 According to the Concise Yearbook of Poland, London, 1941, there were in 1938 over four million hectares of arable land and 190,000 hectares of orchards and market gardens in Western Ukraine. The principal crops grown were wheat, rye, barley, oats, potatoes, and sugar beet.

Before 1939 farming in Western Ukraine was carried out on a very primitive level. After the incorporation of this region into the Ukrainian Republic, however, great changes were made. On October 28, 1939, the People's Assembly of Western Ukraine decreed the confiscation of large land estates, and subsequently, according to the Moscow periodical, Soviet State and Law (1941-III), over one million hectares were distributed among 400,000 landless farm workers and small holders. Similar changes occurred in the other incorporated territories. In the northern part of Bukovina, (in the Chernovitsy Province joined to the Ukraine) 200,000 hectares were distributed among landless workers, while in the Izmail (former Akkerman) Province, Bessarabia, 65,000 hectares were divided.

474 241 178 Apart from the confiscation of large estates and the re-distribution of the land, two further processes could be observed in these areas from the time of their incorporation until Germany attacked the U.S.S.R.: the organization of peasant holdings into collective farms, and the increased mechanization of agriculture. By September 1940 there were 400 collective farms in Western Ukraine; by January 1, 1941, the number had increased to 571, in which there were organized 34,000 peasant farm holdings. (These numbers do not include 535 "initiative" groups for the creation of collective farms with 14,000 peasant farm holdings.) In Northern Bukovina (according to the same source Soviet State and Law, 1941-III) the first seven collective farms with 3,000 hectares were also founded.

475 407 Mechanization also advanced rapidly. In the western part of the Ukraine 170 Machine and Tractor Stations were established in the first year of incorporation into the Republic. In 1941 in the Izmail Province, 27 Machine Tractor Stations were being built, and in the Chernovitsy Province, 13.

475 407 652 In the Transcarpathian region (incorporated into the Ukraine in June, 1945), nine Machine and Tractor Stations were established in 1946 to assist the work of the fields. The Five-Year Plan 1946-50 provides for special attention to the farms of Transcarpathian Ukraine in the form of machines, fertilizers and credits to increase agricultural production in this region, the pre-war output of which was as follows.

TABLE VI

U 241 433

Transcarpathian Ukraine: Area and Production of Crops in 1937

	Hectares	Average yield in metric tons per hectare	Total production in metric tons
Wheat	31,476	0.7	20,796
Rye	25,679	0.62	13,773
Barley	3,331	0.48	1,396
Oats	30,527	0.45	13,124
Potatoes	46,253	8.72	397,347
Sugar beet	96	23.86	2,291

Source: Statistical Handbook of Czechoslovak Republic, London.

SU 241

The Organization of Farming in the U.S.S.R.

It may be well at this point to outline briefly the methods of farm organization which characterize the Soviet Union.

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The Collective Farms (kolkhozes)

474 241 433

The foremost agricultural problems of the Soviet Union have been to increase the area under cultivation, to improve the methods of production, to raise yields per hectare as well as total production, and from this increased production, to ensure that adequate supplies of food reach the towns and factories. The primary means of achieving these aims was the organization of individual peasant farms into collectives (kolkhozes). By 1932, the end of the first Five Year Plan, this transformation was largely completed.

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During the second and third Five Year periods the policy of using the most modern methods of scientific farming in the kolkhozes was continued. Thousands of tractors, threshing machines, combines, mowing machines, binders, and other large machines were produced for use on the collective farms, and were concentrated by the government in Machine and Tractor Stations (M.T.S.), which served the kolkhozes for a legally fixed fee, paid in kind.

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The M.T.S. are now a well-known feature of Soviet farming.[1] They have their own workshops and staffs of mechanics and farm-hands. The average equipment of an M.T.S. before the war was 84 tractors (approximately 15 h.p.), 22 combine harvesters, 14 threshers, and a proportionate number of ploughs, harrows, drills, etc. Each M.T.S. works for a group of kolkhozes, usually about 30, and carries out all the mechanized agricultural work (ploughing, sowing, harvesting, threshing, etc.). Apart from these mechanical services, the M.T.S. gives qualified advice on rotation, technique, financial matters, etc.

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1 What Are Collective Farms, V.A. Karpinski; Lindsay Drummond, London.

475 Payment for work done by M.T.S.'s is regulated by state tariff, and
437 consists of a portion of the farm produce. Milling work is also paid for in kind.

[442] Besides delivering grain and other agricultural products to the government in this way, (that is, payment in kind to the M.T.S. and the flour mills), the kolkhozes also were obliged to turn over a certain additional quota to the government by direct sale.

474 The share of agricultural produce which the government received from the kolkhozes was before the war often as much as 35-40 per cent. of the collectives' gross income; but aside from what was paid to the government in kind, the kolkhoz had also to pay administrative costs, including the salaries of kolkhoz office workers.

474 The kolkhoz also put aside funds for seed reserves, fodder,
434 insurance and emergencies; and after all these obligations were met, the remaining income was distributed among the kolkhoz members according to the number of days worked. In 1933, for example, the kolkhozes received for distribution among their members 32 per cent. of their cash income, in addition to 39 per cent. of the total yield of grain. In 1938 52.6 per cent. of the money income was distributed.

Productivity of the Collectives

241 The increased productivity which resulted from the collectivization
433 of agriculture is shown by an investigation which the People's
474 Commissariat of Agriculture conducted in 1937 of 221,000 kolkhozes
461 (91 per cent. of the U.S.S.R. total). A study was also made of the productivity of labour in 430 kolkhozes selected so as to give a cross section of regions of all types. The results were as follows: mechanization and the application of modern methods simplified the work and considerably reduced the need for human labour. The introduction of tractors, combines, and other agricultural implements had reduced the entire process of production to $10\frac{1}{2}$ labour days per hectare, whereas on individual farms the same operations required nearly 21 days. At the same time the amount of production per hectare under the kolkhoz system had increased by 60 per cent. Altogether, the productivity of the kolkhozes was 3.2 times higher than that of individual farms. If only those kolkhozes were considered which used tractors, combines, and seeders, their productivity was 7 times as high.

474 Originally it had been expected that the collectives would supply
433 the bulk of all farm production for the state and the cities; and in
438 fact they did produce the grain, cotton, sugar, flax and other raw
472 materials required for the needs of the population, industry, and export; however, they did not yield sufficient quantities of other foods to supply the cities adequately. Instead, the individual plots

SU 474 433 438 472

which the kolkhoz members were permitted to keep[1] were performing this task, furnishing the city markets with meat, dairy products, eggs, poultry, vegetables, fruit, honey, mushrooms, and berries.

SU 474 [442 434]

In April 1940, in order to provide a wider incentive for the kolkhoz members to increase their collective production, the system of delivery assessments was radically changed. Whereas the basis for grain deliveries to the government had previously been the amount of land sown or, in the case of meat, milk, eggs and poultry, the size of the herd or flock, the new basis for assessments was the amount of land held by the kolkhoz; and any production above the fixed rates could be retained by the kolkhoz for distribution among the members according to labour days.

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A second decree applying to the Ukraine alone established supplementary pay for increasing the crop yield or productiveness in the raising of livestock. This decree directed the collectives of the Ukraine to assign various sections of the field or garden to work teams, working to produce a fixed quota. If the production did not exceed the quota, the members were paid only by the labour day; but if a team produced above the quota, it received part of the excess as bonus.

SU 423

In 1934 the Soviet Government decided to permit individual members of the kolkhozes to keep private farmsteads within the limits of ¼ to 1 hectare. A year later the code for the kolkhozes (called the "Stalin Code") confirmed these rights. It also secured forever the land held by the kolkhozes:

> "All boundaries formerly separating plots of land belonging to members of co-operatives are herby abolished, and all their holdings are pooled together to be used in common...the land occupied by the kolkhozes (as all land in the U.S.S.R.) is public government property. It is...secured to the kolkhozes for use without time limit, that is in perpetuity, and not subject to buying, selling or leasing to anyone by the co-operative... All agricultural production on kolkhoz land, shall be carried on by the members of the kolkhoz, jointly, co-operatively... Out of the land held in common a small part shall be set aside for the use of each household (for truck gardening, orchards, etc.)... The dimensions...may vary...from ¼ to ½ hectare and in certain regions up to one hectare".

1 [SIC-- ANALYST]

SU The State Farms (sovkhozes)

495 After the revolution, when the large holdings were broken up, a
242 certain number of well-organized estates were preserved as model agricultural stations. These were subsequently turned into State Farms (sovkhozes), the purposes of which was to experiment with seed selection, plant and livestock breeding, fertilizers, etc. The sovkhozes, operating with hired labour, turned over to the government all their pro-
SU duction above the requirements of the sovkhoz workers.

[407] To an even greater extent than the collective farms the State Farms were mechanized. They had the best technical equipment and, compared with the kolkhozes, twice the concentration of tractors per hectare. The sovkhoz workers received wages at specially worked out rates: they had the use of living quarters, dining rooms, and educational and entertainment facilities.

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[433] The State Farms achieved good results in raising production, both of grain and of industrial crops.

SU
474 However, the basic form of agricultural organization in the U.S.S.R.
475 continued to be the collective farms, which supplied the bulk of food
311 and agricultural raw materials for industry.

372 At the beginning of the third Five Year Plan (1938), there were in the Soviet Union 242,000 collective farms (kolkhozes) embracing 91 per cent. of all the land under cultivation. The kolkhozes had 117.2 million hectares of arable land; the 3,960 State Farms (sovkhozes) had 12.4 million hectares;[1] and 1.5 million individual farmers had 900,000 hectares of arable land.[2]

U Collective Farms in the Ukraine

474 In 1938 the Ukraine contained almost one-ninth of the collective
311 farms in the Soviet Union (27,393 out of 242,392). The total area
433 occupied by the Ukrainian kolkhozes was 34.9 million hectares, of which about 61 per cent. was under cultivation. Like the kolkhozes in other Republics, the Ukrainian collectives made giant strides in the years between 1932-38: they increased in number, from 25,000 to 27,393; they increased their area of cultivation from 18.9 million to 21.4 million hectares;[3] but the greatest increase was in productivity, as the following table shows.

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1 Although the area of the sovkhozes extended to 68 million hectares, their sown acreage amounted to only 12.4 million hectares.

2 The Socialist Agricultural Economy of the U.S.S.R., Moscow, 1939

3 In the Ukraine as a whole, however, the cultivated area declined from 26.4 million hectares in 1932 to 25.6 million in 1938.

TABLE VII

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Average Yields of Grain on Ukrainian Collective Farms
(metric tons per hectare)

	Ukraine Average pre-world war I 1901-13	Ukrainian Collectives Average 1932-34	1937-39	1939
Winter rye	0.98	0.83	1.20	1.15
Winter wheat	1.04	0.93	1.43	1.59
Summer wheat	0.70	0.73	0.76	1.03
Summer barley	0.93	0.93	1.26	1.52
Oats	1.07	0.87	1.12	1.23
Millet	0.99	0.61	1.0	1.16
Buckwheat	0.68	0.50	0.58	1.50
Maize	1.11	0.93	1.5	1.57
Average all grains	0.91	0.85	1.23	1.36

Source: Speech delivered by N. Kruschev[1], Secretary General of the Communist Party of the Ukraine, cited in Agriculture in 1940, A. Mortumov, Planned Economy, Moscow, 1940/II.

In the entire Soviet Union the average yield of grain crops increased from 0.7 tons per hectare in 1930 to 0.97 tons per hectare in 1938.

The development of agriculture in the collective farms of the Ukrainian S.S.R. from 1934-38 is further illustrated by the following table, which shows the area under cultivation, yield per hectare and gross output of the principal crops in 1938, all in percentages of 1934.

1 Now Premier of the Ukrainian S.S.R.

TABLE VIII

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Productivity of Ukrainian Collective Farms in 1938
(expressed in percentage of 1934)

	Area under cultivation	Yield per hectare	Gross output
Grain	88.0	176.0	157
Sugar beet	90.0	164.0	161
Sunflower	89.0	208.0	171
Flax	126.0	140.0	290
Cotton	146.0	671.0	986

Source: J. Stetsenko "Productivity of Work in Collective Farms in the Ukrainian S.S.R." Planned Economy, Moscow, 1940/I.

As the table shows, the area under cultivation of grain, sugar beet, and sunflowers decreased somewhat; however, average yields per hectare and total production were increased by 75 to 100 per cent. This increase in productivity was brought about by improved cultivation methods: the use of selected seeds, chemical fertilizers, more scientific crop rotation and above all, by the greater mechanization of labour. As we have seen, the Ukraine had in 1938 nearly a thousand Machine and Tractor Stations, as compared with 657 in 1932. The effect of mechanization in the collectives is best shown by the fact that whereas in 1932 the M.T.S. cultivated 77.1 per cent. of the arable area of the Ukrainian kolkhozes, by 1937 they were serving 98.8 per cent. of the collectives' entire arable land.

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Since 1938 (the last year in which comprehensive agricultural statistics for the U.S.S.R. were published) there has been little information available about agricultural production in the Soviet Union. The figures which have been made public emerge from press or conference reports, and the information is usually very scanty. The immediate pre-war picture is therefore not clear.

We do have, however, the planned 1941 area of cultivation in the U.S.S.R., as well as the percentage of increase over 1940. From these figures we can estimate the sown areas in 1940, as the following tables show.

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TABLE IX

U.S.S.R.: Planned Area of Principal Crops, 1941

	Planned area 1941 in million hectares	Per cent. increase on 1940
Grain	111.1	0.2
Industrial crops	12.0	1.7
Vegetables, melons, potatoes	11.4	12.9
Fodder crops	22.5	24.3
Total	157.0	3.9

Source: Report of N. Voznesensky, Chairman of the State Planning Commission of the U.S.S.R. delivered on February 18, 1941, at the Eighteenth All-Union Conference of the Communist Party of the Soviet Union.

Using these figures as a basis, we have the following areas for 1940.

TABLE X

U.S.S.R.: Area Sown in 1940
(in million hectares)

Grain	110.9
Industrial crops	11.79
Vegetables, melons, potatoes	10.1
Fodder crops	18.1
Total	150.89

Source: Calculated on the basis of Table IX.

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Although we do not have similar figures for the Ukrainian S.S.R. alone, we do know that in 1940, 612,000 hectares were sown to sunflower, and 764,000 to sugar beet. The harvest of sugar beet amounted to 14.8 million tons (an average of 19.4 tons per hectare). In the same year the harvest of grain was over 28 million tons, and of potatoes, 21.5 million tons.[1]

1 Pravda Ukrainy, Kiev, August 28, 1946.

241 In comparing these figures with 1937 production the increases in the area
433 of the Republic must be borne in mind.

Effects of the War on Ukrainian Farming

727 When the German armies were finally driven out of the Ukraine in
241 1944 they left most of the Republic's farmsteads completely in ruins.
471 So great was the devastation which they wrecked that even today the full extent of it is not definitely known. It has been estimated by Ukrainian officials, however, that the invaders ruined and plundered 27,110[1] of the Ukraine's collective farms and 872[1] of the state farms, burning the buildings and wrecking or stealing the machinery. The Germans also wrecked over 422,000 collective farm buildings and 423,000 privately owned farm buildings[2], scorched and laid waste millions of hectares of farm land, and destroyed 1,300[1] machine and tractor stations. The consequent losses of machinery were enormous. Fifty-six thousand tractors, 24,000 harvester combines, 30,200 trucks and automobiles used in farming and 1,892,000 other agricultural machines were destroyed or stolen by the Germans. The next table shows the losses compared with pre-war numbers.

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1 Statement by Mr. I.S. Senin, Deputy Chairman of the Council of Ministers of the Ukrainian S.S.R. at a meeting of the Deputy Foreign Ministers on February 7, 1947, published in Soviet News, London, February 8, 1947.

2 Department of UNRRA Supplies of the Ukrainian Government, Kiev, April 6, 1946.

TABLE XI

Ukraine: War Losses of Farm Machinery

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	Number before the war	Destroyed or wrecked by the Germans
Tractors	over 90,000[1]	56,000[2]
Harvester combines	" 31,000[1]	24,000[2]
Trucks and cars used in agriculture	" 50,000[1]	30,200[3]
Other farm machines	n.a.	1,892,000[3]

1 Source: Mr. Baranovsky, Member of the UNRRA Council for the Ukrainian S.S.R. Speech at the Fourth Session of the UNRRA Council on March 20, 1946, Atlantic City, UNRRA Journal, Volume IV, No.6.

2 Source: Statement of the Soviet Commission on Material Damage Caused by the German-Fascist Invaders, Soviet News, September 18, 1945.

3 Source: Letter to the UNRRA Mission to the Ukraine from Mr. V.V. Khomyak, Chief, Ukrainian Department of UNRRA Supplies, April 6, 1946.

In addition to the spoilage of buildings, machinery and land, the Germans seized, slaughtered, or drove away millions of farm animals, and stole from the collective farms or from private citizens of the Ukraine over 12 million tons of farm produce, including 9.5 million tons of grain and flour[1].

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In the period immediately after liberation agriculture was slowly restarted, almost entirely by hand and in the most adverse conditions. Transport was highly disorganized and at the same time had to carry military traffic. On the heels of the victorious Soviet army the evacuated collective farmers were returning with their few animals to their wrecked farms. The flocks and herds were decimated or non-existent. Everywhere there were tremendous shortages of seeds, fertilizers, implements, machinery and manpower to do the work. In most districts in 1945 only 50 to 60 per cent. of the pre-war area could be sown. Many of the crops were sown late because of difficulty in cultivating the land; and when harvesting time came, much of the reaping and threshing had to be done by hand. Average yields of all crops were very low.

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1 Department of UNRRA Supplies of the Ukrainian Government, Kiev, April 6, 1946.

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Nevertheless, the 1945 harvest - assisted by land-lease supplies which were still then available, and (beginning in December 1945) by UNRRA relief deliveries - was furnishing the population a fair amount of cereals and bread. There was, however, very little meat from domestic sources, and only a small amount of fats and oils, as the following table shows.

TABLE XII

Ukraine: Production and Utilization of Fats and Oils, 1945.
(thousand metric tons)

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	Oilseeds	
Production		
Total production of oilseeds		496.4
Deduction for seed		53.6
Available for processing		442.8
Utilization		
(388) Total production of oil		105.8
Deduction for industrial use (soap manufacture, etc.)		26.7
Available for human consumption		
by urban population	29.0	
by rural population	50.0	
Total		79.1
Average consumption		Kilograms per person per year
urban population		2.41
rural population		1.86
Average		1.98

[p2 87]

TABLE XII (Continued)

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258 Production
262

		Animal fat	
Production			74.7
Imports			12.5[1]
Available for consumption			
by urban population		32.7	
by rural population		54.5	
Total			87.2
Average consumption			Kilograms per person per year
by urban population			2.73
by rural population			2.0
Average			2.19

Summary (Oils and Fats)

All fat and oil resources		
Vegetable oils		105.8
Animal fats		74.7
Total production		180.5
Imports		12.5[1]
Available for distribution		193.0
Consumption		
Technical purposes		26.7
Food		
Urban	61.7	
Rural	104.6	
Total food		166.3
Total consumption		193.0
Average consumption		Kilograms per person per year
by urban population		5.14
by rural population		3.86
Average		4.17

1 Available from Lend-lease

Source: Ukrainian Department of UNRRA Supplies, Kiev, May 15, 1946.

433 As the table shows, the Ukrainian people received in 1945 only 4
262 to 5 kilograms of fats - 8 to 18 kilograms less than their pre-war
388 annual consumption rate.

Disaster in 1946

433 Early in 1946 other UNRRA supplies in addition to food began to
241 arrive - seeds, small quantities of fertilizers, and a few farm tools.
648 Throughout the Ukraine great efforts were being made for a successful spring sowing. However, there were still shortages of seeds, fertilizers, implements, and machinery. None of the 1,600 tractors promised by UNRRA had arrived. Much of the work was still being done by hand, especially where no draught animals were available.

[311] Even despite these drawbacks, it is estimated that about 80 per cent. of the pre-war area was sown; but no figures are available on the acreage planted to individual crops. In April 1946 the UNRRA Mission, describing the difficulties in getting detailed agricultural statistics, stated:

> "...During a recent inspection trip we were informed by the agricultural authorities of the Poltava oblast,[1] one of the best agricultural regions in the Ukraine, that they did not even try to set production goals for their collective farms this year (1946); they simply told each farm to plant as much as possible of whatever crops it could raise with the seed, equipment, draught animals, and manpower available. (For example) We believe that nobody really knows with any degree of accuracy what acreage was planted to oil seeds in the Ukraine this year, what yield may be expected, or how much of the resulting oil will be available for non-farm use."

433 The Ukrainian people set high hopes on the 1946 harvest. However,
241 in the very summer when a good crop would have made all the difference,
649 the greatest drought since 1891 destroyed their prospects. It affected a vast area from Moldavia to the Urals, south to the Kuban and north to Moscow. The earth was parched; and the crops, burnt by the hot summer sun, had little to draw upon because rain and snowfall in the winter of 1945-46 had been poor. Hopes withered with the wheat. The potato crop too was affected: a hot wind out of Asia dried the plants, and dwarfed the tubers.

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1 Oblast: a district similar, for administrative purposes, to a county.

U
433 During all this time the livestock of the Ukraine (see next
231 Section), was being slowly and laboriously built up by gifts from the
262 rest of the Union, by levies on Germany, and by natural increase.
731 Meat was very scarce, since no-one was willing to slaughter and further deplete the slender herds. Cows, used for draught purposes, gave little milk. Now added to these intense shortages of meat, fat and dairy products was another great deficiency of cereals and bread, hitherto the mainstay of the Ukrainian post-war diet.

U
241 The 1946 harvest cannot, at the most optimistic estimate, be
433 reckoned at more than 40 per cent. of 1940 in cereals and vegetables
231 per hectare sown.[1] There is no fodder for the jealously guarded animals; shelter for them is also very scarce since the people themselves are only now moving out of dugouts. If the animals are slaughtered, the small supplies of dairy products and meat will soon disappear; and the problem of draught power will remain as acute as ever.

U
241 There is an agricultural dilemma in the Ukraine which a good
433 harvest would have gone far to break. Although extensive and con-
464 tinued demobilizations have been taking place, there is a great shortage of labour on the farms.[2] If manpower is taken from the farms to help produce the machinery necessary to liberate further men from the land, there may not be enough farm workers left to produce sufficient food for the factory workers. The poor harvest has aggravated this vicious circle.

The Soviet Government has attempted in various ways to meet this problem not only in the Ukraine, but throughout the Union. Everyone who is able to work does so; young people, old people, women. The
U women who worked during the war have remained part of the labour force
[462] in both industry and agriculture, and an increasing number are being recruited. In the Ukraine in 1946, women composed at least 60 - 70 per cent. of the farm working force.

SU
[464 At the same time as steps are being taken to concentrate more
241 workers in agriculture, the organization of the collective farms is
474 being overhauled and geared to higher efficiency. To accomplish this,
647 the Soviet Council of Ministers created on September 19, 1946, a Collective Farm Council, whose main tasks will be to elaborate measures for the improvement of collective farming. This Council which is authorized to call conferences of collective farm representatives when necessary, was set up for the purpose of "establishing strict control over the observation of collective farm statutes and for the solution of questions of the collective farm structure." One of their primary

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1 One must also bear in mind the reduced area under cultivation.

2 The war losses are felt very acutely.

474 one of their primary
647 tasks is to guard collective farm property against embezzlement or
685 misuse. During the war nearly 4.8 million hectares were unlawfully taken away from the kolkhozes; this land has now been returned to them.

474 Another aim of the Collective Farm Council is to ensure that the
647 collective farmers themselves have more direct participation in the
623 administration of the kolkhoz, in the allocation of revenue and the distribution of material means. General meetings of collective farmers are to be called regularly to elect management committees and auditing committees, whose activities are to be fully reported.

474 A very important change has occurred in the structure of collective
461 farms wages, which are now designed to place even greater emphasis on
465 efficiency; the minimum number of work days required has also been
464 raised. Another change which affects both industry and agriculture, has been made in administrative organization; Soviet News, London, March 5, 1947, reported as follows:

> "In view of the excessive growth of personnel in the administrative and managerial apparatus and in non-productive branches of national economy, and of the necessity of a further increase in the numbers engaged on productive works, the Council of Ministers issued an instruction to increase the number of productive workers in 1947 at the expense of the numbers employed in administrative and managerial apparatus and in non-productive work."

The administrative staffs of the collective farms have thus been reduced. According to Mr. Andreyev, head of the Collective Farms Council, over half the number of agronomists and experts will be directed to actual production. Simultaneously, the salaries of administrative personnel have been cut to 25 per cent. less than those of workers in the fields.

241 A recent resolution of the Soviet Communist Party also deals with
474 measures which are to be taken in connection with the rehabilitation of agriculture.[1] Among the main tasks specified are the improvement of the administration of agriculture; improvement in the work of machine and tractor stations; wide training of skilled agricultural cadres; and the provision of new tractors and agricultural machinery, as well as supplies of fertilizers and fuel.

All these measures are necessary - and particularly a great deal must be done in 1947 - if the Five Year Plan in agriculture is to be fulfilled.

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1 Soviet News, London, March 5, 1947.

1 [i.e., of the Collective Farm conferences set up 19 Sept. 1946 -- Analyst]

The Five-Year Plan in Ukrainian Agriculture

185 311 494 According to the Five-Year Plan 1946-50 the crop area of the Ukrainian S.S.R. in 1950 is to reach 30.5 million hectares, of which 21.3 million are to be planted on the collective farms. The distribution of major crops is planned as follows.

TABLE XIII

Ukraine: Crop Area in 1950 (Planned)
(hectares)

	Total area	Including on the collective farms
Grain crops	19,600,000	14,100,000
Industrial crops	2,600,000	2,200,000
Melons, potatoes, and other vegetables	2,800,000	1,000,000
Fodder crops	5,400,000	4,000,000

Source: The Five-Year Plan, 1946-50

The area sown to sugar beet in 1950 is fixed at 830,000 hectares, and to sunflower, 801,000 hectares. The hopfields are to be rehabilitated, and the area of vineyards growing European varieties of grapes is to be expanded. Measures are to be taken to drain 40,000 hectares and irrigate 30,000 hectares of farm land; and all engineering work needed to ensure normal production is to be restored.

241 433 185 Average yields of Ukrainian crops in 1950 are envisaged as follows: grain, 1.42 tons per hectare (compare 1939 average 1.36); flax, 0.42 tons; sugar beet, 19 tons; and potatoes, 11.2 tons per hectare.[1]

In the entire Soviet Union in 1950 the grain harvest is planned at 127 million tons, of which the Ukraine is to produce 27.8 million tons, or more than one-fifth. The Ukraine's sugar beet harvest is fixed at 15.7 million tons, representing over 60 per cent. of the sugar beet harvest of the U.S.S.R. in 1950. The production of potatoes is expected to be 23 million tons.

The following table compares these targets with pre-war production.

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1 Pravda Ukrainy, Kiev, August 28, 1946.

TABLE XIV

185 433 241 Ukraine: Planned Production in 1950 Compared with 1940 and 1913 (see Note)

(million metric tons)

	1913	1940	1950
Grain	20	28	27.8
Sugar beet	8.9	14.8	15.7
Potatoes	about 5[1]	21.5	23

1 According to the report in Pravda, the potato harvest in 1940 was "over 4 times" that of 1913.

Source: Pravda Ukrainy, Kiev, August 28, 1946.

[728] Note: In comparing the 1950 target figures with pre-war production it is important to bear in mind the territorial revisions which occurred in the Ukraine after 1939, when she regained Western Ukraine and part of Bessarabia, lost a part of the Moldavian Autonomous Republic (which, together with the Moldavian Section of Bessarabia, then became a separate Union Republic), and added Northern Bukovina and Transcarpathian Ukraine.

[131] Thus the present area of the Ukraine exceeds its 1938 area by approximately 118,000 kilometres (11,800,000 hectares). However, 311 we do not know precisely how much of this is agricultural land. The 728 arable land in Western Ukraine before the war amounted to 4 million hectares; that of Transcarpathian Ukraine, to 239,000 hectares. In the parts of Bessarabia and Bukovina which were ceded to the Soviet Union, 3,285,800 hectares were classified as arable. If we roughly divide this between Moldavia and the Ukraine in proportion to the total ex-Rumanian area incorporated in each, about 1,300,000 hectares of agricultural land would have been added to the Ukraine in its share of Bessarabia; and the arable area of present-day Ukraine would exceed the 1937 cultivated area by about 5½ million hectares, the potential total being 30.6 million. The fact that the Five-Year Plan fixes the Ukraine's 1950 area of cultivation at 30.5 million hectares seems to support this assumption.

Livestock

231 In 1941 the number of livestock in the Ukraine was estimated at 30.4 million, including 10.5 million cattle and 4.6 million horses.[1]

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1 Statement on March 20, 1946, by Mr. Baranovsky, Ukrainian delegate to the UNRRA Fourth Council Session, published in the "UNRRA Journal", March 21, 1946.

231 During the war these numbers were greatly reduced: the Germans killed, stole, or drove away 3.311 million horses, 7.594 million head of cattle, 9.333 million pigs, 7.317 million sheep, and over 59.379 million fowl of all kinds.[1]

231 727 474 The collective farms of the Republic suffered most heavily. After the German occupation the collective farms of the Ukraine were left with only 6.3 per cent. of their 1940 herds of cattle, 1.9 per cent. of their pigs, and 3.4 per cent. of their sheep. In practical terms, the Germans had almost completely wiped out collectively-owned livestock.

231 727 In rehabilitating their herds the collective farms have received much assistance from the Soviet Government and the fraternal Republics - Russia, Kazakhstan, Georgia and others - which have supplied hundreds of thousands of animals. However, the number of livestock in the kolkhozes are still far below pre-war. Most rapid steps were made in the re-stocking of cattle herds, which by early 1946 had reached 66 per cent. of the pre-war number of Ukrainian collective farms; pigs were 23 per cent. of pre-war and sheep and goats, 29 per cent. (Note: the figures in the two preceding paragraphs relate to collective farms alone.)[2]

The following table shows the pre-war numbers of livestock in the Ukraine (pre-1940 boundaries) and in the Soviet Union as a whole.

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1 Soviet Monitor, London, February 8, 1947.

2 Soviet Monitor, London, September 12, 1946.

TABLE XV

231

Livestock in Pre-War Ukraine and in the U.S.S.R.

	Ukrainian S.S.R.	
	1932	1937
Cows	2,436,500	3,458,900
Other large cattle	1,591,700	4,300,500
Pigs	2,667,700	7,729,700
Sheep and goats	1,528,700	3,301,500
Horses	2,430,200	2,937,200

	Soviet Union	
	1934	1938
Large cattle	35,500,000	50,900,000
Pigs	11,500,000	25,700,000
Sheep and goats	36,500,000	66,600,000
Horses	15,400,000	16,200,000

Source: Soviet Construction, Moscow, 1939

379 407 It will be noted that in both the Ukraine and in the U.S.S.R. as a whole, only a slight increase occurred in the number of horses. This again illustrates the greater use of machines in place of animal draught power.

Livestock in Western Ukraine

In 1939 the livestock of Western Ukraine alone was as follows.

TABLE XVI

Livestock in Western Ukraine, 1939

Cows	1,718,000
Other horned cattle	868,000
Pigs	1,466,000
Sheep and goats	772,000
Horses	1,043,000

Source: Concise Year-Book of Poland, Polish Ministry of Information, London, 1941

231 In the first years after Western Ukraine was incorporated into the 414 Ukrainian S.S.R. there were built up in that region 285 cattle farms, 185 sheep farms, and 112 pig farms. By January 1, 1941, there was a total of 742 livestock farms in Western Ukraine alone.[1]

Bessarabia

231 There are no recent figures available for livestock in Bessarabia and Northern Bukovina; in 1935, however, it was estimated that these two regions contained three-quarters of a million cattle, as well as 611,000 pigs, 2,355,000 sheep, and 602,000 horses (a total of 4,340,000 cattle, sheep, pigs and horses).[2] We have no figures as to how much of this livestock was included in the provinces added to the Ukraine.

Ukrainian S.S.R. Livestock: the Five-Year Plan

231 By 1950, according to the Five-Year Plan, the number of horses in 185 the Ukraine should reach 2,629,000, a target which is 60 per cent. lower than the pre-war figure. To attain even this number, a great increase of horses must yet be made. In order partially to compensate, the Five-Year Plan has fixed a great increase in the number of oxen, so that the total number of oxen and horses together in 1950 will be five per cent. higher than before the war.

The following table shows the planned number of livestock in the Ukrainian S.S.R. by 1950.

TABLE XVII

Livestock in the Ukraine, 1950 (Planned)

	Total	Included on the collective farms	Per cent. increase 1950 total over 1940 number
Cattle	12,230,000	4,700,000	16
Pigs	9,600,000	3,300,000	7
Sheep and goats	6,780,000	3,100,000	8
Horses	2,629,000	1,363,000	- 60[1]

1 Decrease from 1941 figure.

Source: Pravda Ukrainy, Kiev, August 28, 1946.

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1 Soviet State and Law III, Moscow, 1941.

2 International Institute of Agriculture, Rome.

185 253 234 According to the new Five-Year Plan, the output of meat in the Ukrainian S.S.R. in 1950 will amount to 245,000 tons (for the entire Soviet Union the production target is fixed at 1,300,000 tons) while output of butter for the Ukraine in the year 1950 is fixed at 40,000 tons (275,000 tons for the entire Soviet Union).

The following factories and farms will be rehabilitated or built: 55 meat packing plants, 33 refrigerator plants, 97 poultry farms, 46 milk factories, and 100 butter and cheese factories.

III INDUSTRY AND TRANSPORT

135 311 433 Ukrainian industry is based chiefly on rich deposits of coal in the Donets Basin, iron ore in the Krivoi Rog district (where the ore contains 60 per cent. metal), and manganese ore in the Nikopol area. To utilize this great natural wealth a very large metallurgical and machine-building industry has been bult up in the Ukraine. At the same time, many food factories including sugar refineries, have been created to process the food so abundantly produced by Ukrainian farms. In the period between wars, the share of the Ukraine in the country's industrial output declined somewhat, not because of slackened activity - on the contrary, Ukrainian industry continued to be even more intensively developed - but because the policy of the U.S.S.R. was to decentralize, and to expand and develop those areas, particularly the eastern ones which previously had no industry. This lengthening of the industrial pace naturally brought about a certain change in emphasis, so that whereas by 1938 the productivity of Soviet industry as a whole had increased to about eight times the output of Tsarist Russia in 1913; the proportion of Ukrainian output in the total was lessened. For example, in 1928 the Krivoi Rog district of the Ukraine produced 78 per cent. of all the iron ore in the U.S.S.R.; but in 1937, although this district was producing more, its share in the total was only 47 per cent.

War Damage to Industry

727 433 Before they were finally driven from the Ukraine the Germans furiously set about wrecking those Ukrainian industries which still survived. They stripped the plants of equipment and destroyed the buildings; they flooded the coal mines; they completed the destruction of the famous Lenin Hydro-Electric Power Station and the Dnieper Dam - both of which had been partially disabled by the retreating Soviet Army troops on August 28, 1941.

The damage to all branches of industry was tremendous and will take many years to repair, particularly since the shortages of labour and equipment, as well as the scarcity of food have been a hindrance at every step. Some of the difficulties were destribed in a report of the UNRRA Mission after visits to several of the larger Ukrainian cities in May 1946.

"In our cable...we outlined the condition and needs of industrial plants in six principal Ukrainian cities visited by members of the Mission during May. The pattern is fairly uniform. Many plants were completely destroyed and those which still stood were usually heavily damaged and almost universally gutted of all modern equipment. Included among those industries hardest hit are the heavy capital goods industries, machine tool manufacturing industries, and power stations, as well as the rolling and stationary stock of all forms of transportation, and equipment for processing building materials. So great is

727 433 the destruction that there are competing calls upon the limited supplies of manpower, equipment and materials. We observed many instances of ingenious adaptation and salvaging of old and antiquated machinery; yet restoration was everywhere slow and complicated by lack of equipment to move away the rubble, transport the materials, produce the electric energy, and repair the streets, sewers, and gas and electric lines. There is a vicious circle. Iron and steel, for example, are needed to repair electric power stations and rebuild houses; efforts to restore these basic industries and facilities are constantly delayed because there is not enough shelter; and neither shelter nor the industries and community facilities can be replaced until there are more cranes, tractors and trucks. Low-calorie diets, induced by lack of foodstuffs, cause low efficiency and slow production. The food UNRRA is shipping has sustained the people, though, to be sure, it has not been sufficient to compensate for local shortages; the country may somewhat accelerate its industrial rehabilitation - especially of shelter and water supplies - when the equipment items on the UNRRA programme arrive. Meanwhile it is slowly restoring those parts of its economy which will respond to manpower aided by a minimum amount of mechanical equipment."

Industrial Aims of the Five-Year Plan

185 729 The great importance of rehabilitating Ukrainian industry and the share which Ukrainian industry has to take in the entire Soviet Union economy are shown by the new Five-Year Plan.

By comparing the aims for 1950 with pre-war production figures, it is possible to have some impression of the destruction which occurred in the Ukraine during the war.

The table which follows shows the planned ratio of Ukrainian output in 1950 to the output of the entire Soviet Union. Where possible, pre-war figures have been included.

TABLE XVIII

Share of Ukrainian Industry in Total Soviet Production

1940

	Ukrainian S.S.R.	U.S.S.R. total	Ukraine (per cent. of total)
	(thousand metric tons)		
Pig iron	9,200	14,900	61
Steel	8,600	18,400	47
Coal	83,800	164,600	51
Tractors (units)	n.a.	176,000[1]	n.a.
Locomotives (units)	880[2]	1,214[2]	72[2]
Sugar	1,790[2]	2,378[2]	75[2]

1950 (planned)

	Ukrainian S.S.R.	U.S.S.R. total	Ukraine (per cent. of total)
	(thousand metric tons)		
Pig iron	9,700	19,500	49.7
Steel	8,800	25,400	34.6
Coal	86,100	250,000	34.4
Tractors (units)	25,000	112,000	22.3
Locomotives (units)	1,000	2,720	40.0
Sugar	1,637	2,400	68.2
Metallurgical equipment	n.a.	n.a.	33.9

1 1938 figure
2 1937 figures

Note: n.a. means not available.

Source: Pravda Ukrainy, Kiev, September 1, 1946; The Five-Year Plan, 1946-50; Russia's Economic Front for War and Peace, A. Yugov, C.A. Watts and Co., Ltd., London, 1941.

Progress in 1946

At the beginning of 1947 the State Planning Commission of the U.S.S.R. issued a statement describing the progress in rehabilitation and development made during 1946. According to this statement the gross output of industry in the entire U.S.S.R. increased by 20 per cent. in 1946 as compared with 1945. About 800 government enterprises had been built, restored, or launched during the year. Navigation was opened on restored canals. A series of steps were also taken in 1946 to expand Soviet trade and consolidate the currency. Wages and salaries of low and medium-paid workers were raised.

SU
464 The number of workers and employees in the national economy of the
874 U.S.S.R. increased by 3 million. Vocational schools and factory training centres graduated thousands of skilled workers, and improved the skill of several millions already employed.

SU
727 Of the districts which suffered occupation, economic rehabilitation
433 as well as capital construction amounting to 17,500 million roubles in
652 1946 made it possible to increase their industrial output by 28 per cent. as compared with 1945. Pravda writes - "the factories, mills, pits, power stations, towns and villages which were destroyed by the enemy are being revived one by one...."[1]

In the Ukraine

U
727 The Ukraine has been likened to one big building site, where more
433 than 500,000 workers are engaged in restoring industrial plants and
327 municipal buildings.[2] In the Donets Basin, the coal output of 1946 was 30 per cent. higher than that of 1945. In the Ukrainian iron and steel industry, 21 blast furnaces, 58 steel-smelting furnaces, 60 metal and pipe-rolling mills, and 71 coke batteries were at work by January 1947. Of 104 machine-building factories to be restored, 102 were already producing goods, and mastering the production of improved types of machinery. The Kharkov transport machine-building works was preparing to build long-distance steam engines; and the tractor works was increasing its production, as were many other factories.

U
727 In 1946 the Kharkov turbo-generator works made a 100,000 kilowatt
433 turbine and one of 50,000 kilowatts. At Dniepropetrovsk, a lorry
393 factory was being built; and in Odessa and Lvov, automobile assembly
398 works were under construction. Great work was also being done in the development of light industry, food processing, chemical works, and other branches of industry.

U
727 After three years' work of restoration the Dnieper Dam had been
433 rebuilt in the main, and the housing for the power station erected.
377 By the end of 1946 the capacity of Ukrainian power stations had reached 70 per cent. of pre-war.

U
362 Since the liberation over 104.5 million square feet of floor space
368 had been restored in the Ukraine. Over half a million of the 590,000 houses destroyed by the Germans were restored or built anew in Ukrainian villages; and more than 13,000 cultural institutions in the villages and 118,000 auxiliary buildings on the farms.[2]

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1 Pravda, quoted by Soviet News, London, January 22, 1946

2 Soviet Monitor, London, January 23, 1947.

Coal

316 433 The coal centre of the Ukraine is the basin of the Donets River, a tributary of the Don. In 1913 the Donets region was producing 80 per cent. of all the coal turned out in the entire Russian Empire. (23 million tons of the 29.2 million total); and even in 1940, when the production of other coal areas in the U.S.S.R. had been greatly expanded, and many new areas explored and put into operation, Donets mines still accounted for more than half the total output (83.8 million tons of the entire Soviet Union production of 164.6 million).

Since about 70 per cent. of all the fuel consumed in the U.S.S.R. is supplied by coal,[1] the rehabilitation of the Ukrainian coal industry is of tremendous importance to the economy of the Soviet Union.

727 316 It is now over three years since the Soviet Army drove the Germans out of the Donets Basin. Before their rout, the enemy flooded the mines and burned engineering plants, miners' settlements, and cities. Restoration work was started soon after the liberation of the Basin, but it was estimated that to restore coal output to the pre-war level it would be necessary to pump 650 million cubic metres of water out of the mines and to restore 1,565 miles of mine galleries.[2] Today, the towns of the Donets Basin are a mass of scaffolding, as war-devastated houses, buildings, and roads continue to be repaired. Mine derricks dot the landscape; and water is being pumped in a steady stream from the mine pits. At the Chelyuskin Mine which before the war was one of the biggest and best equipped in the Donets, over nine million cubic metres of water had been pumped by the middle of December 1946; and about 20 miles of galleries had been restored. Coal output averaged a thousand tons a day.

By January 1947 about 142 major coal mines of the 279 operating prior to the war had been restored, and 430 smaller ones, rehabilitated or built anew, were in operation. Production was nearly half of pre-war.[3]

[362] As regards housing for Donets workers, it is planned within the next five years not only to restore the houses demolished by the Germans, but also to build another 20 million square feet of housing space in the Donets Basin; in 1946 alone over four million square feet of floor [464] space had been reconstructed. Thousands of miners are being helped to build their own homes; and measures are being taken to increase their food supplies.

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1 Moscow Radio feature, "Sidelights on Soviet Life," cited in Soviet Monitor, London, January 29, 1947.

2 Soviet Monitor, London, September 12, 1946

3 Soviet Monitor, London, January 23, 1947

Coal: Plans for the Future

185 433 316 Under the Five-Year Plan, the coal industry of the Ukraine is to be speedily rehabilitated and further developed, so that by 1950 its output will be 86,100,000 tons, including about 6 million tons of brown coal (lignite).[1] When it is remembered that this target is only 2.3 million tons over 1940 production, the enormous task of rehabilitation confronting the industry is made clear. The difficulties are even more accentuated if one compares the increase of coal production in three pre-war years, from 1937 to 1940, when output leaped from 70 million tons to 83.8 millions.

Plans for increasing the future coal output of the Ukraine include not only the restoration of old mines but also intensive prospecting and the sinking of many new shafts.

"Between 1946-50, coal mines with an aggregate capacity of 77,500,000 tons are to be put into operation in the Stalino and Voroshilovgrad regions of the Ukrainian S.S.R."[2]; and coal fields in other areas are to be further developed. In particular there are to be put into operation in the Donets Basin and in the western regions of the Ukraine, small coal mines and drifts with a total capacity of 4,600,000 tons of coal, and peat briquette plants with a capacity of 50,000 tons.

The lignite mining industry is to be developed and by 1950 is expected to supply annually some 6 million tons of coal. Five lignite mines operating in the Ukraine in 1946 increased their output in October by three times as compared with April.

135 654 Large coal supplies are expected from the regions west of the Dnieper, where 11 promising coal deposits are located. Prospecting is in progress there, as well as in the Zdolbov, Krasnoarmeysk, and Kolomya areas of Western Ukraine, where 28 shafts had been sunk by November 1946.[3]

Industrial lignite deposits have also been found in an area of four square miles between Slavgarod and Sinelnikovo (near Dniepropetrovsk) and in the Transcarpathian region.

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1 The coal output of the entire Soviet Union in 1950 is fixed at 250 million tons.

2 The Five-Year Plan, 1946-50

3 Soviet Monitor, London, November 21, 1946.

135 To the south-east, in the Don and northern Donets valleys,
654 geologists have discovered a number of new coal-bearing areas, and have confirmed that the Donets Basin coal layers stretch far to the east and south.

Other investigations of coal-bearing areas are to begin shortly, particularly around the Azov Sea coast and in other regions bordering the Donets Basin.

Coke

316 The coke output of the Ukrainian S.S.R. in 1950 is planned to be 15,500,000 tons.

Natural Gas and Oil

315 With the incorporation of Western Ukraine in 1939, the Ukrainian
183 S.S.R. came into possession of oil producing regions. The Five-Year Plan calls for the intensive development of these and other areas of the Ukraine for the increased production of oil and natural gas. Three hundred and twenty-five wells are to be located to add to the [654] petroleum resources of the western regions; prospecting for commercial deposits of petroleum in the Rozny area is to be completed; and there is to be extensive geological exploration for natural gas in the Dragobych Region (Western Ukraine) and on the Azov and Black Sea coasts.

[382] The total output of petroleum in the Ukrainian S.S.R. in 1950 is fixed by the Five-Year Plan at 325,000 metric tons.

The plan also provides for the building of a gas pipeline from Dashava to Kiev. Already in process of construction, the first section of the pipeline will be completed this year (1947) and will supply gas to more than 30,000 flats and several large industrial plants in Kiev.

Electric Power Stations

377 Electrification has been one of the outstanding features of the Soviet economy. Before the war the Ukrainian Republic possessed a wide network of electric power stations. Best known was the huge Dnieper Dam and Lenin Hydro-electric Station, completed in 1932 near Zaporozhie. This station supplied electric power to a great industrial region: in the north the steel mills of Dniepropetrovsk and Dnieprodzerzhinsk, and to the south-east, the Nikopol manganese mines. These three industrial centres developed quickly after the Dnieper Dam was built; and the abundance of cheap power available from it also gave rise to the growth of a metal and machine-building centre at Zaporozhie.

727 In August 1941 the retreating Soviet army troops partially disabled
397 the Dnieper Dam and power station to prevent its falling into enemy hands. This destruction was later completed by the Germans. When the Soviet Army recaptured the region, they found that 35 of the dam's 48 piers had been blown up, and all the generators destroyed. Damage to the power house alone was estimated at 500,000,000 roubles.

Reconstruction work began in February 1944, when the war was still on. Three years later the assembly of the first power unit of 72,000 kilowatt capacity was completed; and on March 3, 1947, the Lenin Hydro-electric Station supplied its first post-war currency to the industry of the Dnieper Valley.

There are over 11,000 men and women engaged on the restoration job, which has involved repairing the dam and the underwater structures, building the housing for the power station, and mounting the machines. Another two power units are to be assembled later this year.

After the expulsion of the Germans from the Ukraine, the capacity of the Republic's power stations was only 0.4 per cent. of pre-war. By the end of August 1946 restored capacity had reached 47 per cent. In the Donets Basin 70 per cent. had been restored, and in the Stalino area, 79 per cent. In the city of Lvov (Western Ukraine) the pre-war capacity of its electric power stations had been surpassed by 18 per cent. In the first seven months of 1946 much had been accomplished: some 400 power stations, including 215 hydro-electric plants, had been launched in the Ukraine; and it was expected that 750 more power stations would be completed by the end of the year.

The Five-Year Plan fixes the 1950 output of electric power in the Ukraine at 13,690 million kilowatt hours. The total capcity of Ukrainian power stations is to be increased in 1946-50 by 2,57_,000 kilowatts. The Five-Year Plan directs that:-

"The Lenin Hydro-electric Station on the Dnieper shall be rebuilt. Small hydro-electric power plants with a total capacity or 203,000 kilowatts shall be built to meet the requirements of agriculture and local consumers. Plant aggregating 95,000 kilowatts shall be put into operation at municipal electric power stations."

The restoration of electric power facilities will assist greatly in rehabilitating other sections of the Soviet economy

Iron and Steel

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327 The Five-Year Plan for the Ukrainian S.S.R. envisages an output in
433 1950 of 9.7 million tons of pig iron, and 8.8 million tons of steel.

In order to accomplish this, the iron and steel plants of the Donets Basin and the Dnieper region are to be rehabilitated; and there are to be put into operation 30 blast furnaces with an aggregate annual capacity of 9 million tons of pig-iron, steel smelting units with a

[THIS page is a duplicate of P. 45]

000 In August 1941 the retreating Soviet army troops partially disabled the Dnieper Dam and power station to prevent its falling into enemy hands. This destruction was later completed by the Germans. When the Soviet Army recaptured the region, they found that 35 of the dam's 48 piers had been blown up, and all the generators destroyed. Damage to the power house alone was estimated at 500,000,000 roubles.

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capacity of 8.4 million tons of steel, and 58 rolling mills with a capacity of 6.5 million tons of finished rolled goods.

In view of the enormous destruction of industry during the war, these aims are heroic, because they in fact mean that for five years the Ukrainian iron and steel industry will be striving to regain and then even to exceed, the production of 1940. This is shown by the following table, which gives the pre-war output of iron ore, manganese ore, pig-iron, and steel, as well as the planned output of the latter two in 1950. Figures for the U.S.S.R. as a whole are also included for comparison.

TABLE XIX

Ukraine: Production of Pig Iron and Steel
(thousand metric tons)

Year	Iron ore		Manganese ore	
	Ukrainian S.S.R.	Whole U.S.S.R.	Ukrainian S.S.R.	Whole U.S.S.R.
1928	4,671	5,700	531	1,200
1932	7,925	12,100	443	1,400
1937	16,414	26,000	957	2,000

Year	Pig iron		Steel	
	Ukrainian S.S.R.	Whole U.S.S.R.	Ukrainian S.S.R.	Whole U.S.S.R.
1928	2,361	3,300	2,409	4,300
1932	3,911	6,200	3,128	5,900
1937	8,801	14,500	8,467	17,700
1940	9,200	14,900	8,600	18,400
1950 (Planned)	9,700	19,500	8,800	25,400

Note: 1940 figures not available for iron ore and manganese ore.

Sources: Socialist Construction, Moscow, 1939; Russia's Economic Front for War and Peace, A. Yugov, C.A. Watts and Co.Ltd., and The Five-Year Plan, 1946-50.

As the table shows, areas of the Soviet Union other than the Ukraine are expected considerably to increase their production during the next several years. This, as well as the complete revival of Ukrainian plants, is particularly necessary to rebuild the transport system, and to replace tractors, machinery, and farm implements which were either stolen or destroyed during the war.

Progress in Rebuilding

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727 In 1946, nearly all of the ferrous metal plants in the Donets were put into working order once more. The biggest blast furnace in the Ukraine started operating again in the Azovstal works; two other blast furnaces were put into operation, one in the Dzerzhinsky works at Dnieprodzerzhinsk and the other in the Makeyevka iron and steel works, where the mounting of a great blooming mill was also completed. The open hearth furnace at the Petrovsky works, two coke batteries of the Dzerzhinsky works, coke battery No.2 at the Mariupol coke and chemical works, the rolling mills at Yenakievo and Kramatorsk, and a number of other units of the iron and steel industry started operations.[1]

Altogether by the end of 1946 there were 21 blast furnaces,[2] 58 steel-smelting furnaces, 60 metal and pipe-rolling mills, and 71 coke batteries at work in the Ukrainian S.S.R.[3]

The iron mines in the Krivoi Rog basin (Ukraine) had been 85 per cent. restored. Another five big iron mines are to be put into operation this year, and by 1950 ore extraction in the Krivoi Rog area is expected to surpass the pre-war output.[4]

However, the task of reconstruction is still immense. Many of the large plants are still greatly disabled. The largest iron and steel plant in the Ukraine (at Zaporozhie) was systematically destroyed by the Germans.

This factory, with its three blast furnaces, ten open-hearth furnaces, strip and rolling mills, and 25,000 kilowatt generator, was still expanding when the war broke out. A small amount of light equipment was evacuated, but the bulk of equipment and all of the structures housing it were damaged or destroyed. Soviet engineers estimate that 65 per cent. of the value of the equipment was destroyed. Total restoration costing seven hundred million roubles will take from three to four years. Full restoration will require vast amounts of iron and steel for repairing the plant, of mechanical equipment for operating the plant; and of materials to rebuild the houses of the workers.[5]

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1 Soviet News, London, January 23, 1947.

2 On January 1, 1935, there were 55 blast furnaces in the Ukraine (55 per cent. of total U.S.S.R. capacity) and 117 open-hearth furnaces (40 per cent. of total U.S.S.R. capacity).

3 Soviet Monitor, London, January 23, 1947.

4 Soviet Monitor, London, January 28, 1947.

5 UNRRA Mission to the Ukraine, Kiev.

Heavy Industry Building in 1947.[1]

327 727 Reconstruction and building will be on a wider scale in 1947, as many improvements are introduced. Mechanization is being extended in blast furnaces, open-hearths, and metal-rolling shops; and ore and coal stores are being equipped with modern cranes.

In the Donets Basin in 1947 the Stalino Metal Works are to put into operation another blast furnace, marten oven and rolling mill.[2] At the Azovstal works the two blast furnaces of 1,000 cubic metres each will be enlarged to 1,300 cubic metres. Also at the Azovstal works, which in the past did not produce any rolled metal, are being built a blooming mill, which will be the largest in the south, and a rolling mill. New blooming mills and rail rolling mills are also to start at the Petrovsky works in Dniepropetrovsk, and at the Dzerzhinsky works in Dnieprodzerzhinsk. New pipe-rolling workshops will be added at the Nikopol Yuzhno-Trubny and the Dniepropetrovsk works.

At the Zaporozhstal works in 1947 several workshops will be added; and a power station and a 1,300 cubic metre blast furnace will begin working in the first half of the year. Among the most urgent tasks at this plant is the reconstruction of machines producing sheet metal for automobile production.

Equipment for Iron and Steel Mills

According to the new Five-Year Plan, the Ukrainian output of equipment for iron and steel mills in 1950 has been fixed at 35,000 tons; the total production of the entire Soviet Union has been fixed at 102,900 tons (of which 66,700 are to be produced by the Russian Soviet Federative Socialist Republic).

Production of Tractors

727 407 433 Before the war there were about 90,000 tractors in operation on Ukrainian farms. During the occupation, 56,000 of these were wrecked or stolen by the Germans, who also completely destroyed the well-known tractor factory at Kharkov. Because of the particularly great need of tractors in the Ukraine, this factory was rebuilt with great vigour; and production resumed. By February 1947 the Kharkov Tractor Works had produced 3,000 tractors since the restoration of the plant.

The 1950 output of tractors in the Ukraine is expected to be 25,000; for the entire Soviet Union, production has been fixed at 112,000 tractors.

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1 See U.S.S.R. Deputy Minister for the Construction of Heavy Industry Enterprises, Radio Moscow, February 3, 1947, B.B.C. Digest of World Broadcasts No. 274, London, February 5, 1947.

2 Soviet Monitor, London, January 2, 1947.

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Chemical Industry

The chemical industry of the Ukraine is based chiefly on coal deposits, but also on a number of other raw materials to be found there, including lacustrine deposits of sodium chloride (Artemovsk area) and phosphatic rocks (Konstantinovka area).

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The Five-Year Plan fixes that:

"The chemical plants of the Ukraine, including soda, nitrate, and superphosphate plants, shall be rebuilt, and the potash mines in the regions of Stanislav and Dragobych, and a new superphosphate plant, a paint and varnish plant and a plastics factory built.

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"In 1946-50 geological surveys shall be conducted with a view to locating commercial deposits of potassium salts to a total of 80 million tons, graphite to a total of 7.7 million tons, and gypsum to a total of 7 million tons."

Output in 1950 is fixed by the Plan as follows:

for the Ukrainian S.S.R.

Calcined soda	448,000 tons
Superphosphates	860,000 tons, and
Salt,	1,930,000 tons;

and for the entire Soviet Union:

Calcined soda	800,000 tons, and
Mineral fertilizers, superphosphates, nitrates and potash	5,100,000 tons.

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Light Industry[1]

By the end of 1946 the production of consumer goods in the U.S.S.R. had already revived considerably; output in the different branches ranged from 20 to 50 per cent. above 1945. Reconversion of the factories to peacetime production was largely completed; however, three big tasks remained: to complete the rehabilitation of all light industry enterprises wrecked by the Nazis; to replace the old or worn-out machinery; and to obtain an adequate supply of labour and materials.

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1 Soviet News, London, December 30, 1946, and February 6, 1947.

SU 727 185 SU 652 A recent decree of the U.S.S.R.'s Council of Ministers was designed to assist the fulfilment of all these tasks. It puts light industries in the priority class for supplies of raw materials, fuel, electricity, manpower, and workers' housing; and it approves increases of capital investments in the textile industry from 5,900 million roubles to 7,300 million in 1946-50, and in light industry, from 2,180 to 2,900 million roubles in the same period.

As a result of these measures, consumer goods output by state-owned enterprises is expected to rise this year (1947) by 50 per cent. and the output of the co-operative societies will certainly increase as well.

U 228 Light Industry Rebuilding in the Ukraine

By January 1947, 58 textile mills had been restored in the Ukraine. Work had been resumed at the Odessa and Sury textile factories; and the Kharkov textile mill had been restored and considerably expanded. Sometime this year a new textile mill is to be launched in the town of Stryia, Dragobych Region; and in the Izmail Region, the Tatar-Bunary mill will resume operations. Cotton mills are being built in Lvov, Kiev, and Chernovitsy.

U 231 Sericulture has been restored in the Ukraine, where it was begun only ten years before the war. It is to be further developed under the Five-Year Plan, and in the next ten or fifteen years the Ukrainian Republic should become one of the leading silk-producing regions of the Soviet Union. A silk mill is being constructed at Darnitsa, and Kiev silk mills have delivered their first batch of silk.

U 288 433 Pre-War Output of Cotton Cloths[1]

In 1937 the production of cotton cloths in the Ukrainian S.S.R. amounted to 7.1 million metres (1.2 per cent. of the total output of the Soviet Union), while in 1932, production was only 2.2 million metres (0.08 per cent. of the total Soviet Union production of cotton cloths). The cotton cloths production of the entire Soviet Union had risen from 2,694 million metres in 1932 to 3,447.7 million in 1937.

U 282 SU 282 Leather Footwear[1]

Leather footwear production in the Ukraine in 1937 was 31,228,000 pairs of shoes, (17.07 per cent. of the 182,916,000 pairs produced in the whole Soviet Union); while in 1932 the Ukrainian S.S.R. had turned out only 14,535,000 pairs (16.72 per cent. of the Soviet Union total: 86,949,000 pairs)

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1 Socialist Construction, Moscow, 1939.

Food Industries

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727 The damage suffered by the Soviet food industry during the German
25 occupation - not counting the destruction of livestock and crops - has
U been estimated at 17,000 million roubles. Restoration work was begun
727 while the war was still on, and by May 1947, 3,200 food factories had
25 been rebuilt. A fairly large proportion of these restored factories
433 must have been in the Ukraine, where, according to the Soviet Monitor[1] 1,600 out of 1,822 pre-war food factories had been restored by November 6, 1946. The rehabilitated factories had exceeded their 11 months' food output programme by production valued at 12 million roubles (146 million roubles over the corresponding period of 1945).

Sugar

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257 Before the war the output of sugar in the Ukraine was as follows.

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TABLE XI

Pre-War Sugar Production: Ukraine and U.S.S.R.
(metric tons)

Year	Soviet Union total	Ukrainian S.S.R.
1928	1,221,200	1,086,400
1932	826,800	559,700
1937	2,377,500	1,789,800

Sources: Socialist Construction, Moscow, 1939; and Statistical Yearbooks of the League of Nations, Geneva, 1936 and 1939.

The Five-Year Plan establishes that in 1946-50 sugar refineries in the Ukraine shall be restored or built capable of handling upwards of 67,000 tons of sugar beet per day. By 1950, according to plan, the output of granulated sugar in the Ukraine will reach 1,637,000 tons, (in the entire Soviet Union, 2.4 million tons).

Forestry

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[311] In January 1935 the forest area of the Ukrainian S.S.R. was
313 3,845,000 hectares - about 0.5 per cent. of the forest area of the entire U.S.S.R.[2] The number of sawing frames in the Republic was 703 out of the Soviet Union total of 6,500 (total capacity, 18.4 million cubic metres).[3] Considering the relatively small forest

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1 November 11, 1946

2 Socialist Construction, Moscow, 1936.

3 Planned Economy, Moscow, 1940, II.

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313 area of this Republic, the high proportion of sawing frames reveals the advanced development of its timber industry.

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313 During the war Soviet timber enterprises, along with other industries,
727 suffered considerably. Much has been done to repair the damage, but rehabilitation work has been seriously hampered by shortages of wagon transport and of seasonal labour. In January this year a Pravda leading article announced that the preparation of timber in the U.S.S.R. was nine million cubic metres short of the plan, and that the shipment of prepared timber was "in an even worse condition," particularly in the Ukrainian and Byelorussian Republics. Part of the difficulty at least was due to breakdowns in tractors, but chiefly to labour shortage and low labour productivity. Here again, as in all branches of industry and agriculture, the exceedingly low food ration scales must be taken into account.

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185 The Five-Year Plan includes the following provisions for
313 Ukrainian timber developments:

> "To reduce the haulage of lumber to the Ukrainian S.S.R., the general plan for the production of undressed lumber in the Ukraine in the years 1946-50 shall be set at 47,600,000 cubic metres, with provision for an increase of felling in the western regions of the Ukraine and a restriction of felling in its eastern regions. Reafforestation shall be carried on extensively, timber being planted in the period 1946-50 on an area of 252,000 hectares and measures taken to replenish the thinned forests and to introduce fast-growing varieties of timber."

Paper Production

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287 In 1937 the Ukraine produced 28,400 tons of paper, as compared with 22,600 tons in 1932. This output represented, in 1937, 3.42 per cent., and, in 1932, 4.8 per cent. of the Soviet Union total paper production.[1]

In 1946 the reviving paper industry of the Ukraine turned out about 9,500 tons of paper and cardboard, exceeding its production programme by 10 per cent. This year the output of paper and cardboard is expected to be more than double that of 1946.

The first section of a mill producing paper bags has been launched in the Dragobych Region, and another paper mill is being built in the same region. Two cardboard factories are being built, one in Lvov and one in Rakhov (Transcarpathian Region).[2]

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1 Socialist Construction, Moscow, 1939.

2 Soviet Monitor, London, January 10, 1947.

Production of Building Materials

339 In connection with the reconstruction work being carried out in
185 the Ukraine, the production of building materials is extremely important. The Five-Year Plan lays down that the pre-war production of bricks is to be increased by 50 per cent. of tiles, by 170 per cent. of lime, by 120 per cent., and of gypsum by 190 per cent. The Plan also states that

> "Plants for the production of building materials - including cement, glass, brick, lime, and tile works, plants producing metal fixtures, prefabricated houses, building sections, plumbing fixtures, roofing materials and high tensile gypsum - shall be restored or built and stable local fuel and power supplies created for the building material plants."

The Ukrainian output of cement in 1950 is expected to be 2,065,000 tons as compared with 10,500,000 tons for the entire U.S.S.R.

[323] Under the jurisdiction of the Republic and local authorities there are to be put into operation in the years 1946-50 glass works with a capacity of 11-33 million square feet of glass, brick kilns with a capacity of 9 million bricks, and rolling mills and other building material plants.

Transport

727 The war and the occupation brought great devastation to the
489 transport system of the Ukraine. The greater part of the railroads were partially or completely destroyed, and many hundreds of railway bridges demolished. The port of Odessa on the Black Sea was systematically destroyed - piers, warehouses, elevators, floating cranes, and power supply. The Dnieper-Bug Canal, the only water outlet towards the west, was made impassable by the Germans, who destroyed the sluices, wrecked bridges, sank boats in midstream, and choked the canal with mud.

185 The Five-Year Plan, 1946-50, provides for the complete rehabili-
489 tation of Ukrainian transport. Railway lines and junctions, and locomotive and car repair works are to be fully restored. A number of railway lines are to be electrified; and west of the Dnieper several narrow gauge lines are to be constructed for closer connection of sugar beet growing areas with sugar refineries.

185 To alleviate the difficult situation in rail transport, motor
489 roads are to be rebuilt and extended. The Moscow-Kharkov highway is
494 to be rehabilitated and improved, and additional motor roads are to be built to connect towns of the Ukrainian S.S.R. with the towns of the North Caucasus and the Crimea. By 1950 the tonnage of freight transported by road should be 16 times the pre-war volume. The number

U 185 489 494 of road passengers should increase 7½ times; and the number of buses, by 3,000.

U 185 489 503 The Five-Year Plan also provides for the expansion of river and sea traffic. Small rivers are to be extensively adapted for navigation, and will also be utilized for local hydro-electric power supplies. Shipbuilding yards are to be rebuilt, and the tonnage of river and sea traffic is to be considerably increased. The freight turnover on small rivers of the Ukraine in 1950 is fixed by the Five-Year Plan at 450,000 metric tons.

Pre-War Traffic

U 489 In 1937 the Ukrainian railways handled 313.1 million metric tons of loads, as compared with 165.7 million in 1932. The river transport carried 7.7 million tons (4.7 million in 1932), while in the same year Ukrainian seaports handled 8.6 million tons as against 6.5 million tons in 1932.

SU 497 U 497 The U.S.S.R.'s system of rail transport is perhaps the weakest link in the Soviet economy. In 1937 the railway network of the entire Soviet Union amounted to only 86,400 kilometres (83,400 kilometres in 1933). The construction of additional lines had by no means kept pace with the expansion of industry and agriculture. The Ukraine in 1937 had some 14,400 kilometres of railway lines; and traffic loads in that year amounted to some 313.1 million metric tons. The inadequacy of the system if compared with other European countries is marked. For example, in France (the area of which was approximately equal to that of pre-war Ukraine) the length of the principal lines open for traffic on January 1, 1938, was 42,000 kilometres.

U 727 497 The war has greatly disrupted Ukrainian rail transport. Locomotives, rolling stock and tracks were heavily damaged or destroyed. The problem of rehabilitation is especially serious, because the lack of adequate transport facilities hinders other rebuilding projects. The locomotives and cars taken as reparations from Germany, being chiefly of narrow gauge, are consequently of no use on most existing Soviet tracks.

Production of Long Distance Locomotives

U 397 Before the war the output of long distance locomotives in the Ukraine was as follows.

TABLE XXI

U 397

Ukraine: Pre-War Production of Long Distance Locomotives

Year	Ukrainian S.S.R number	Soviet Union total number
1928	231	479
1932	431	828
1937	880	1,214

Sources: Socialist Construction, Moscow, 1939; and Russia's Economic Front, A. Yugov, New York, 1941.

SU [397] Ukrainian production of long-distance locomotives in 1950 is planned to be 1,000. For the Soviet Union as a whole a target of 2,720 has been fixed: this includes 2,200 steam locomotives, 300 diesel, and 220 electric locomotives. The Ukrainian output of freight cars in 1950 is fixed at 55,500 - more than a third of the target for the whole U.S.S.R., which is 146,000 freight cars.

Motor Vehicles

U 397 SU [397] The number of motor vehicles to be produced in 1950 in the Ukrainian S.S.R. is fixed by the new Five-Year Plan at 25,000 while for the entire Soviet Union the output is as follows: 428,000 trucks, 65,600 passenger cars, and 6,400 motor buses. Apparently the destruction of factories producing motor-vehicles was particularly heavy.

The Five-Year Plan provides for the building in the Ukraine of two motor car assembly plants, as well as a works to produce annually 60,000 motor trucks.

Dnieper-Bug Canal[1]

U 503 487 The Dnieper-Bug Canal, cutting through the Pinsk bogs and the Brest forest in Byelorussia, is important as the only water outlet towards the west, connecting the Dnieper, Western Bug, and the Black Sea with the Vistula.

It first took shape at the end of the 18th century under the name of the Imperial Canal. But in those days, being shallow and without sluices, it was of little use for navigation. For ten months in the year the canal was dead. Only at high water, in the springtime, could a small quantity of timber be rafted along its course.

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1 Soviet News July 24, 1946.

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The canal was reconstructed just before the German invasion. In record time, eight months, ten large sluices were built in two stairways of five locks each; and in August 1940 the first river vessels passed through from the Black Sea to the Vistula.

The Germans destroyed these sluices and choked the canal so that all the hydro-technical structures had to be rebuilt anew. The speed of reconstruction was such that by the middle of 1946 vessels and barges were passing freely from the Vistula along the Dnieper with cargoes of timber for the Ukraine.

At present the western Bug is navigable only in April and May. When it has been converted into a normal waterway, effective communication will be established between the Ukrainian and Byelorussian river basins and the Vistula, Oder, Elbe, and Rhine.

IV UNRRA ASSISTANCE TO THE UKRAINE

Distribution of UNRRA Supplies

648 731 UNRRA supplies for the Ukraine are handed over to the government at the port of entry (usually Odessa on the Black Sea); and the government is then responsible for arranging distribution.

648 731 647 Like most other countries receiving UNRRA help, the Ukrainian Government has established a special organization to supervise the reception, warehousing, and distribution of all UNRRA goods received. This organization - which has on its staff specialists in food, industrial equipment, agricultural rehabilitation, food processing machinery, medical supplies, transport, accounting and distribution - is called the Department of UNRRA Supplies, and is directly responsible to the Ukrainian Council of Ministers.

The Department (headed by Mr. V.V. Khomyak) works in close liaison with the various ministries of the Ukrainian Government, and with the UNRRA Mission. On the basis of decisions made by the particular ministries concerned, it draws up plans for the distribution of UNRRA supplies and keeps a central record of their sales and of the proceeds expended by the government for further relief projects.

504 648 731 Most UNRRA shipments for both the Ukraine and Byelorussia have arrived through the port of Odessa; and since early 1946 an UNRRA officer has been stationed there to handle problems connected with delivery. Before an UNRRA shipment comes in, the authorities at Odessa are notified of the ship's name, its expected time of arrival, and the nature of its cargo. As soon as possible after the ship lands, discharging of cargo begins. Stevedoring labour is supplied by the port commander's service organization, "Inflot", which also furnishes checkers to work in the ship's hold and on the docks, counting the supplies and reporting any damaged goods. As the cargo is unloaded, perishable items, such as clothing and cheese, are placed in warehouses on the docks, and seeds in a warehouse in the suburbs of Odessa. Packaged goods, such as canned meat, army rations, and juices, are piled on the dock at shipside and finally into freight cars.

648 731 Directives for the distribution of the supplies (based upon decisions of the recipient ministries concerned) are issued by the Department of UNRRA Supplies to the Ministry of Foreign Trade representative in Odessa, whose office then instructs the railroad and barge authorities, providing such information as the name and location of the organization or governmental authority receiving the supplies, and a description of the goods to be delivered.

[656] UNRRA relief supplies are either sold to individual ration-card or permit holders, or distributed to collectives, co-operatives, and other

648 enterprises; and in accordance with the provisions of the UNRRA
731 agreement, the Ukrainian Government uses the proceeds for further
[C-7] relief and rehabilitation work within the country. Food and soap supplies for example are sold through regular trade channels to ration-card holders, or are delivered to organizations which use them for factory or community feeding. Clothing also is sold in stores against ration cards, or in the case of workers having a high rate of clothing and shoe consumption, against special orders. Used clothing is distributed free of charge to invalids of the war, families of war dead, pensioners, or other recipients of social welfare. Medical supplies and equipment are transferred free of charge to the Ministry of Health. The distribution of agricultural and industrial equipment varies depending upon the nature of the supplies. Consumable items, such as seeds, jute, bagging, rope and industrial raw materials, are sold to collectives, state farms, co-operatives, or industrial enterprises. Capital equipment such as tractors, food processing machinery, or power generators is delivered free of charge to the recipient ministries or their subsidiary distribution organizations. Tractors in particular are delivered in this way to state-owned Machine Tractor Stations.

Proceeds of Sale of UNRRA Supplies

648 Up to March 1, 1947, the sale of UNRRA supplies in the Ukraine
731 had provided the government with 3,166,482,000 roubles[1] for additional
652 relief and rehabilitation work in the Republic. Roughly 85 per cent. of this total resulted from sales of UNRRA food; 6 per cent. from the sale of clothing; and 9 per cent. from the sale of miscellaneous raw materials and agricultural supplies.

Of the cumulative proceeds up to March 1, about 21 million roubles had been used to pay the expenses of distribution, and 823,511 roubles had been spent to provide goods and services to the UNRRA Mission. Of the balance then remaining available (3,144,655,500), nearly half had been used for rehabilitation work at the Republican (state) level of government; 1,324,239,000 roubles had been transferred to regional executive committees (the next level of government) for expenditure on local projects; and about 391 million roubles in cash was still available for future use.

State Relief and Rehabilitation Projects

652 At the state level rehabilitation work carried on from the beginning
657 of UNRRA deliveries up to March 1, 1947, amounted to 1,429,060,000 roubles, and was divided among four main categories; rehabilitation of the national economy, 74 per cent. of the total state-level expenditures; health services, 14 per cent.; children's institutions and schools, 11 per cent.; and social welfare, 1 per cent.

Rehabilitation of the National Economy. These expenditures are administered by the various ministries having productive capital works

[1] 21.36 roubles equals one pound sterling; 5.40 roubles equals one U.S. dollar (March 1947).

652 under their jurisdiction. For example, capital works, repairs,
657 and equipment for livestock raising centres, piggeries, cattle sheds, slaughterhouses and refrigerators (under the Ministry of Cattle Breeding); vineyards, orchards, repairs of irrigation facilities (under the Ministry of Technical Agricultural Production); repairs to barns and agricultural implements (under the Ministry of Agriculture); and rehabilitation of the brick and ceramic industry (under the Ministry of Home Construction).

Health Services. These expenditures are administered by the Ministry of Health, and include the feeding of patients, and repairs and equipment for hospitals and health service agencies.

[658] Children's Institutions (over four years) and Schools. These expenditures are handled by the Ministry of Education, and include the feeding of children; and capital works, repairs and equipment for schools and children's homes.

Social Welfare Services Directed towards the Betterment of General Well-being. These expenditures are administed by the Ministry of Social Welfare and include such services as repairs and maintenance of social welfare agencies, and assistance to invalids.

Local Rehabilitation

648 As at March 1, 1947, about 41 per cent. of the gross proceeds of
727 UNRRA sales had been transferred to regional executive committees of
185 the government for use in the local and district economy. The local
731 projects - which are undertaken after approval by the state authorities and are subject to regular reporting and inspection - are similar in character to those carried out by the Republican Government Ministries. However, there is a considerable shift in emphasis. For example, at the regional level, nearly 57 per cent. of the total proceeds at their disposal was utilized for health services (hospitals, nurseries), 35 per cent. for children's institutions, 5 per cent. for repairs of public and industrial institutions, and 2 per cent. for the building of schools and repair of clubs.

Deliveries of UNRRA Supplies

648 In the original agreement between UNRRA and the Ukrainian Govern-
731 ment was a provision that the Administration would "strive within the limits of its resources" to procure and deliver the Ukraine's share of relief and rehabilitation supplies before July 1, 1946. In the early months of 1946, however, it became clear that procurement difficulties and transport hold-ups would prevent a great part of the supplies from being delivered in time. The UNRRA-Ukrainian Agreement was therefore extended to the end of 1946.

From December 1945, (when UNRRA deliveries to the Ukraine began) up to June 30, 1946, (the time at which they were originally scheduled

to end) only 202,585 gross long tons of UNRRA supplies had arrived in the Ukraine. These consisted mainly of foodstuffs (three-fourths of the entire tonnage); while slightly less than one-tenth was made up of clothing, textiles and footwear; and 67 tons were medical equipment. Despite the urgent need of agricultural and industrial supplies, only 15,336 and 13,249 tons respectively had reached the Ukraine by the end of June.

By the end of January 1947, UNRRA shipments to the Ukraine from all sources amounted to 407,125 gross long tons; and the UNRRA Mission to the Ukraine reported that 372,796 tons of this had reached Soviet ports. Delays in shipments during December and January were greater than usual because the port of Odessa for the first time in many years was frozen over, and ships lay icebound for days.

The following table shows UNRRA shipments in comparison with the programme.

TABLE XXII

UNRRA Shipments to the Ukraine up to January 31, 1947

	Programme (thousand U.S. dollars)	Shipments to January 31, 1946 (thousand U.S. dollars)	(gross long tons)
Food, feed, soap	100,189	94,387	287,519
Clothing, textiles, and footwear	16,856	16,801	15,095
Medical and sanitation	2,326	1,858	373
Agricultural rehabilitation	17,088	14,403	29,070
Industrial rehabilitation	51,591	34,077	75,068
Totals	188,050	161,726	407,125

Source : UNRRA Headquarters, Washington.

Industrial Rehabilitation Supplies

As the table shows, 75,068 gross long tons of the total supplies shipped by January 31 were industrial rehabilitation equipment. These supplies have, however, been extremely slow in arriving. Up to the end of June 1946 only 13,249 gross long tons had reached the Ukraine, including United States army surplus equipment of about 20 electric power stations and generators, as well as some raw materials, chiefly rubber, tin, lead, copper and other metals, and welding electrodes. A small number of machines for use in automobile repair shops, and about 90 motor cars and trucks had also arrived; but the slow delivery of machinery to transport materials and process building equipment was a serious defect, since much of the rubble of war damage had been cleared away, and the lack of such supplies was a hindrance to

731 rebuilding. Between July 1, 1946, and January 31, 1947, however,
648 another 38,744 tons of industrial supplies arrived, bringing the
433 deliveries up to 51,993 gross long tons.

The following table shows the composition of all industrial supplies shipped to the Ukraine by the end of January 1947

TABLE XXIII

UNRRA Shipments to the Ukraine of Industrial Equipment up to January 31, 1947

	Thousand U.S. dollars	Gross long tons
Transport and telecommunications	620	949
Public utilities	18,975	27,451
Building repair equipment	5,030	3,209
Machine repair equipment	1,041	527
Miscellaneous consumer goods	307	97
Materials, chemicals, engineering stores	7,930	42,684
	174	151
Totals	34,077	75,068

Source : UNRRA Headquarters, Washington.

Many of the metals which have been received are being used in canning factories or in the manufacture of household utensils and dishes. Pipe supplies (the first shipments of which arrived in December) are being used to replace destroyed water and gas mains. Canvas tarpaulin has been distributed for use in mines and on the farms of the Ukraine. Although these supplies have unquestionably filled some of the needs, the UNRRA Mission reports that the quantities are too small and the task of reconstruction too great for them to make much impact.

About one-third of the industrial rehabilitation programme for the Ukraine consists of so-called "protocol" supplies - that is certain items of industrial equipment which in a previous trade agreement the United Kingdom had contracted to furnish to the Soviet Union. After UNRRA assumed responsibility in the Ukraine and Byelorussia, negotiations commenced for the transfer of this equipment through UNRRA. About the middle of 1946 arrangements were concluded; and it was agreed that UNRRA would take over and deliver these "protocol" supplies as part of the industrial rehabilitation programme. Similarly, UNRRA became financially responsible for those "protocol" supplies which had already been delivered to the Soviet Union for use in Byelorussia and the Ukraine.

By March 1, 1947, about 16,720,000 dollars' worth of "protocol"

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433 supplies had been shipped to the Ukraine; remaining "protocol" ship-
648 ments to the Ukraine are expected to amount to 923 tons and 784,617 dollars.

Included in these supplies are power stations, pumps, portable cranes, presses, electric locomotives, and electrical and telephone equipment.

Agricultural Supplies

731
241 The greater part of the tonnage in agricultural supplies consisted
648 of seeds; by January 31, 1947, 15,669 gross long tons had been shipped. Most of these seeds had arrived in the spring of 1946; however, some of the bags were inadequately labelled, and the contents not easily identifiable. Because of this difficulty the seeds had to be given costly and time-consuming laboratory tests, which delayed distribution. At the same time, 2,600 tons of seeds were reported by the Ukrainian Government to be either diseased or infested with weeds, and therefore unfit for sowing. Negotiations are still in process for the replacement of these defective seeds by suitable types.

[407] As at the end of 1946 the amount of farm machinery which had arrived was small. For example, the UNRRA programme calls for the delivery of 1,600 tractors to the Ukraine, but only 310 had been received by December 31, and these came too late for autumn ploughing. They are being distributed to state owned Machine Tractor Stations for use this spring.

UNRRA shipments have also included 6,692 tons of bagging, 2,090 tons of fishing equipment, and 244 tons of dairy equipment. These are shown in the following table, which summarizes agricultural rehabilitation shipments to the end of January.

TABLE XXIV

UNRRA Shipments to the Ukraine of Agricultural Supplies up to January 31, 1947

	Thousand U.S. dollars	Gross long tons
Bagging	1,672	6,692
Farm machinery	1,517	2,941
Fishing equipment	651	2,090
Food processing equipment	551	1,122
Repair material and hand tools		312
Seeds	9,861	15,669
Dairy and poultry equipment	151	244
Totals	14,403	29,070

Source : UNRRA Headquarters, Washington

Medical Supplies

731 758 648 The UNRRA medical and sanitation programme for the Ukraine is extremely small in relation to the needs; and the rate of deliveries has been the poorest of any commodity group.

Up to the end of January 1947 the Administration had shipped to the Ukraine 373 gross long tons of medical and sanitation equipment valued at 1,858,000 dollars, leaving a balance still to be shipped of just over 468,000 dollars.

In a country where the destruction has been so great and where food supplies are so low, a medical programme of 2,326,000 dollars cannot make much impression; however, such equipment as has been received is being used to the best possible advantage.

743 Most of the hospitals and invalids' homes in the Ukraine are operating under appalling difficulties; and the urgency of the need for equipment and medical supplies is everywhere evident. The UNRRA Mission early in 1946 described several hospitals which they had visited in various parts of the Ukraine. Here is their observation of the one at Kremenchug:

"Kremenchug formerly had a good 450-bed general hospital, which was blown up by a thoroughly efficient demolition battalion when the Germans retreated. All equipment, including an 8,000-volume medical library and a well-equipped X-ray laboratory, was demolished. The only buildings which escaped destruction were seven small sheds and storage houses on the outskirts of the hospital grounds.

"The hospital staff recently installed 250 beds in these ramshackle buildings. In a number of wards the windows were bricked up because no glass is available, and the only light came from an unshaded 40-watt electric bulb in the corridor. Paint was flaking off the floor and the walls of the surgery; most of the roofs leaked, there were no indoor toilets; fuel was available to heat only the operating and delivery rooms and the nursery. (Four babies, on an average, are delivered each 743 day). Many of the patients had no gowns and no bed clothes, except 758 what they were able to bring with them. No soap whatever has been available to the hospital for some time; laundry was simply being boiled with a little soda, and the floors were scrubbed with a lye solution. The only surgical equipment we saw was a few dozen scalpels and haemostats in one small cabinet in the corner of the operating room, and two sterilizers.

"The doctor in charge told us that his patients received an average diet of 1,000 to 1,200 calories a day, consisting mostly of bread, potatoes, cabbage soup, and 15 grams of fat. (The low calorie intake is largely due to the inability of the patients to digest the coarse whole-grain rye or wheat bread, which is available in reasonable quantities). Theoretically the hospital is entitled to 2,500 grams

743 of meat daily for each thirty patients; but, since there is rarely
758 any meat to be had, it received 400 grams of dried milk as a substitute, or approximately 13 grams per patient each day.

"The hospital was so badly overcrowded that beds had been set up in the corridors and even in the yard. Some of these beds had been salvaged from the ruins of the old hospital, and consequently were badly twisted and charred."

The same general conditions prevailed in most of the hospitals visited. The fact that so much improvement has since been made with so little help promises the best use of future deliveries of UNRRA medical supplies. The programme includes in addition to dressings, drugs and chemicals, X-ray equipment and supplies, surgical instruments, dental equipment, and a penicillin plant.

Clothing

291 Since most of the Ukraine's clothing factories were heavily
294 damaged or destroyed in the war, there is a widespread shortage of all
148 articles of wearing apparel. The limited UNRRA programme has fallen
731 considerably short of satisfying all the requirements; however, such supplies as have been sent - particularly textiles and shoes - have been economically used to help the most critical cases.

By the end of January 1947 UNRRA had sent the Ukraine 15,095 gross long tons of clothing valued at 16,801 dollars, leaving an unshipped balance of 55,000 dollars. The following table gives the composition of the shipments.

TABLE XXV

UNRRA Shipments of Clothing to the Ukraine up to January 31, 1947

	Thousand U.S. dollars	Gross long tons
Finished clothing	779	384
Blankets and comforters	902	522
Cotton textiles	573	321
Woollen textiles	3,487	1,359
Raw wool	2,240	3,729
Footwear	5,697	3,997
Upper leather	575	259
Sole leather	1,274	1,624
Hides	188	381
Miscellaneous textiles	183	149
Miscellaneous footwear	735	2,368
Unclassified	168	n.a.
Totals	16,801	15,095

Source : UNRRA Headquarters, Washington.

291 In addition to these items, UNRRA has delivered several thousand
73, tons of used clothing and footwear contributed through voluntary
648 relief organizations in other countries. Most of the contributed supplies are distributed to war invalids or to orphans of the war.

The thousands of pairs of shoes delivered by UNRRA, as well as shoes made in the Ukraine from UNRRA leather, are sold according to a rationing system, with miners and heavy industry workers receiving highest priority. Textiles (also rationed) are sold as piece goods, or are made into garments in Ukrainian workshops for sale to permit holders. UNRRA blankets and comforters are distributed chiefly to hospitals and childrens' homes; and hides and other materials furnished by UNRRA are used in the construction of orthopædic footwear or artificial limbs for wounded veterans.

731 Food Supplies

241 When the UNRRA Mission first arrived in the Ukraine, no data
433 were available on the republic's exact food situation. The 1945
262 crops sown in a reduced area, under great difficulties of seed, fertilizer, and implement shortages, had yielded only a fraction of pre-war harvests. It was expected, however, that Ukrainian farms would produce enough grain to supply the population with bread and cereals until the 1946-47 harvest. UNRRA food supplies were therefore calculated to provide chiefly meats, fats (or equivalents in the form of army rations), and dairy products.

731 Altogether, UNRRA planned to use 100 million dollars of the
262 Ukrainian budget for food. By the end of January 1947, all but
648 5½ million dollars of this had been shipped, as is shown in the following table.

TABLE XXVI

UNRRA Food Shipments to the Ukraine up to January 31, 1947

	Thousand U.S. dollars	Gross long tons
Grain and grain products	548	3,836
Meat and meat products	30,682	54,245
Fish	4,166	23,240
Dairy products	13,378	33,134
Fats, oils, soap	12,725	41,885
Pulses	615	4,658
Beverages	1,490	3,437
Soup- dehydrated	2,835	9,392
Quartermaster food	27,134	109,055
Other food	206	548
U.S. Dept. of Agriculture surpluses	808	3,689
Totals	94,587	287,519

Source : UNRRA Headquarters, Washington.

731 262 [443] 265 Most of the UNRRA food supplies delivered to the Ukraine are distributed to ration stores for sale to workers and their dependants. A large proportion (about 35 per cent.) also goes for communal feeding through dining rooms, health resorts, homes for invalids and the aged, and dining halls of trade schools. Hospitals, childrens' homes, maternity homes, and the like also receive a share (around 10 per cent.) (The food distributed to welfare organizations is delivered free of charge).

731 262 434 Apart from the food which UNRRA supplies, the Ukrainian people are dependent on whatever amounts of local produce may appear on various markets. According to the rationing system, the farmers are allowed to retain part of their produce to feed themselves and their dependants, and the farm's livestock; the state then purchases a certain quota for use in feeding the non-farm population. If any surplus then remains, the farmers may keep it, or sell it on the free market at uncontrolled prices.

241 433 434 In practice, however, because of the extremely poor harvests in the last two years, Ukrainian farmers have scarcely been able to feed even themselves; and the amounts of domestically produced food which reach the ration stores or the free market have consequently been small.

The following section describes the sources of food supply open to the urban consumers.

The System of Food Distribution

443 434 364 262 In the cities of the Ukraine there are three outlets through which foodstuffs reach the population:

(a) the ration stores, where the bulk of foodstuffs are sold at fixed prices to ration-coupon holders;

(b) the so-called gastronoms (commercial stores) where scarce, luxury items are sold; and

(c) the public markets, where collective farmers and peasants bring their surplus produce for sale.

Most of the rural areas and villages of the Ukraine are expected to produce locally enough food to feed the inhabitants; and as they are nearly all considered to be self-supplying, they receive through the central distribution system only sugar and sometimes bread. Their surplus farm produce (that is, food in excess of that needed for feeding people or livestock on the farm and not subject to collection or purchase by the state) is usually brought by the farmers to the public markets for sale to the urban population. [435] The quantities of produce and the variety of items available in the free public markets vary greatly from season to season and from day to day; prices are equally unstable.

000 day to day; prices are equally unstable.

Ration Stores

443 Members of the UNRRA Mission have visited ration stores in all
434 the more important cities of the Ukraine. The city of Kiev, for
264 example, has about 300, all of them much alike. The typical ration food store serves from 2,000 to 2,500 families living in the immediate neighbourhood; if a family moves, it changes its ration card registration to a store in its new locality. Some stores, however, serve the employees of a particular factory or organization as well as a neighbourhood; others are limited to special categories of customers, such as veterans, pregnant women and nursing mothers, teachers, doctors, and scientific workers; these stores have a slightly more varied stock of goods; and in the case of shops for pregnant women and nursing mothers, the roster of customers is smaller so that there is no waiting to be served.

731 Except for bread, most of the food sold in Ukrainian ration shops in 1946 was supplied by UNRRA. Many of these relief supplies, however, did not fit into the established rationing system; therefore many rather elaborate substitution schemes had to be devised, particularly for U.S. army C, K and ten-in-one rations, which were often substituted for a variety of foods. These schemes were said to be in effect throughout the Ukraine, local bodies having authority to make minor changes in substitution values to fit whatever stocks of goods were on hand at the moment.

For example, according to the scheme effective in Kiev in March 1946, if a customer was entitled to buy one kilogram of meat or fish monthly, he might possibly substitute 15 eggs, or 200 grams of powdered milk, or 800 grams of sausage, or a 600 gram can of UNRRA tushonka[1] provided any of these were available. In lieu of one kilogram of fat rarely available the customer might buy 60 eggs, or two kilos of cheese, or 3 kilograms of sour cream, or 1.6 kilograms of powdered milk, or 400 grams of peanut butter, again provided they were available.

The army ten-in-one rations are packed in two cardboard boxes, labelled "first half" and "second half". In Kiev the "first half" was considered to be equivalent to 500 grams of fat and 1½ kilograms of sugar; while the "second half" was equivalent to 2 kilograms of meat and 500 grams of sugar.

In Poltava in April 1946 one U.S. army K ration was being considered the equivalent of 800 grams of meat or 206 grams of fat; one C ration, equal to 925 grams of meat or 310 grams of fat; the first half of a ten-in-one ration equalled 1,500 grams of meat or 500 grams of fat, and the second half of a ten-in-one ration, four kilograms of meat or 1,350 grams of fat.

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[1] A canned meat mixture.

Gastronoms

443 In addition to the ration stores, Kiev has about five gastronoms,
434 or commercial stores, where unrationed goods are for sale. Most
262 of the gastronoms are stocked almost entirely with delicacies, such
554 as Siberian crabmeat, live carp in water tanks, a little fresh meat,
461 salami, candy, biscuits, and Russian cigarettes. (No UNRRA goods are sold in such stores). Until September 1946 the prices in gastronoms were so high that only a relatively small part of the population could afford to buy. The gastronoms were patronized primarily by those with high earnings - professors, theatrical stars, scientists, artists, high ranking army officers, skilled technicians, etc. One of their main purposes was to show the average worker that some luxuries did exist, and thus encourage him to raise his skills and productivity. Another purpose was to provide a special reward for various kinds of meritorious service. For example, war heroes and top generals were entitled to a 40 per cent discount on all purchases made at a gastronom. Moreover, workers who had stayed at the same factory for six years or more were entitled to a 20 per cent discount, and office workers with similar service to 10 per cent.

[435] In September 1946, in accordance with the decision of the Council of Ministers of the U.S.S.R. to abolish differences between the higher "commercial" prices and the low prices of rationed goods, the prices in gastronoms were lowered and certain ration prices, raised somewhat.

[465] At the same time, taking into account the difficulties which average and low-paid workers would encounter as a result of higher ration prices, the Council of Ministers decided to increase all salaries of less than 900 roubles a month. Thus, those workers who previously had earned up to 300 roubles a month received an increase of 110 roubles; those who had earned up to 500 roubles, another 80. Similar increases were allowed in pensions and in students' stipends.

So far as UNRRA food is concerned, the increases in ration prices have affected meat, fish, fats and oils, other categories of UNRRA food supplies particularly milk, cheese, and army rations were not affected.

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435 The following table shows the increases in ration store prices.

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TABLE XXVII

Ukraine: Prices of Rationed Food
(in roubles per kilogram)

	Before October 1, 1946	After October 1, 1946	Percentage increase
Bread (black with rye)	0.9	3.2	255
Bread (whole wheat)	1.8	6.0	240
Meat tushonka	16.6	32.0	87
Pork in gravy	20.5	35.3	72
Meat and vegetables	10.0	15.3	53
Pork and rice	15.7	30.7	90
Meat and corn	10.0	17.7	77
Herrings in tomato sauce	11.5	25.0	117
Herrings in natural oil	17.2	37.5	118
Smoked cod	9.8	18.0	84
Lard	18.0	36.0	100

Source: UNRRA Mission to the Ukraine, Kiev.

Public Markets

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The third kind of outlet for the distribution of food to the urban population is the public markets (officially called "Collective Farm Markets"). Their importance as a source of supplementary food is difficult generally to assess. On the one hand, extremely high prices plus the inconstancy or inadequacy of supplies prevent any group in the population from depending on the public markets for any substantial part of its diet; on the other hand, the variety of food sometimes available impels many to supplement the limited amounts and kinds of foods secured at the ration stores by purchases in the public markets. While prices are fixed and rigidly controlled in the ration stores, there is no control of prices whatever in the public markets, and the seller and purchaser usually agree on the price after a rather elaborate process of bargaining. On account of the limitations in supply, the selling prices are usually dear.

There are striking differences between the fixed, ration store prices and the uncontrolled market place prices. For example, in July 1946 (before ration prices were raised) white bread which - depending on the extraction rate of flour - was selling in ration stores at 90 kopecks[1] to 2.7 roubles a kilogram was selling in the public markets at 28.5 to

1 There are 160 kopecks to a rouble

443 435 262 41.6 roubles a kilogram. Butter, which was almost never available, in the ration stores at 24 roubles a kilogram, and in the public markets, at 150. The price of sugar in the public markets was, on July 10, four to five times the ration store price.

443 262 433 In addition to these products for which there are comparable prices in the ration stores, the public markets also offered certain foodstuffs which were seldom or never available in the ration stores. In the public markets of Kiev dressed beef was selling for 70 roubles a kilogram on June 3, 1946, and 60 roubles on July 6; milk, which on June 3 brought 15 roubles a litre was selling for 12 to 14 roubles on July 6. The fall in the price of tomatoes illustrates the play of demand and supply; when the first fresh tomatoes arrived on the public markets, they brought 15 roubles for each small tomato; by the end of July the price had fallen to 3.5 or 4 roubles for large size tomatoes of the best quality. Similar price reductions occurred in other vegetables and fruits; in each case, however, prices were still extremely high; even when the crops had been harvested, the demand remained far greater than the supply.

The extent of the shortages may be gathered from a report by the UNRRA Mission in June 1946, when a tour of Kiev's two great public markets revealed only one pound of meat, several fowls, small quantities of milk and butter from nearby farms, fifteen small sausages being sold from one can, and a few miscellaneous titbits such as matches, cigarettes, and candy from a ten-in-one ration.

Present supplies are even more attenuated. Ration scales have been cut, and this naturally increases the demand for supplies in the public markets. As the demand grows and supplies dwindle, prices rise even higher. The next table compares free market prices in June 1946, July 1946, and January 1947.

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TABLE XXVIII

Ukraine: Food Prices in a Typical Public Market
(in roubles)

	June 1946	July 1946	January 1947
Bread, kilo	22.5	23.0	50.0 - 55.0
Meat "	about 60.0	70 - 100	60.0
Fish "	-	-	65.0
Milk, litre	16.0	15.0	16.0
Butter, kilo	190.0	190.0	230.0
Eggs, dozen	42.0	48.0	-
Cereals (various) kilo	-	50.0	-
Sugar	-	100.0	-
Vegetable oil	-	200.0	200.0

- Very little or none on sale. Supplies vary greatly but are never very large.

Source: UNRRA Mission to the Ukraine, Kiev.

UNRRA Supplies and the Food Situation

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Until the produce from local farms became available in the spring and summer of 1946, the diet of the urban population of the Ukraine depended principally, apart from bread, on UNRRA food supplies, which in the beginning consisted almost entirely of U.S. army rations, plus some dried and evaporated milk and tushonka. Urgently needed fats and oils were slow in arriving; up to May only 8,596 tons had been received in the Ukraine. The shortage was critical, since domestic production was providing a rate of only 4 to 5 kilograms of fats a year per person, as compared with 12.8 in 1940 and 22 kilograms in 1929.

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Very little food was being received from other parts of the Soviet Union, and a protracted dry spell was threatening the 1946 harvest. Official rations for almost all categories of consumers were low;

262 For example, light workers were entitled to only 1,820 calories[1] a
434 day from rationed foods, and office workers, only 1,236. Supplementary non-rationed foods were obtainable, but only in limited quantities and at high prices.

262 The inadequate diet which everyone had been receiving since the
433 war was undoubtedly responsible for lowered work efficiency, and added
461 to the shortage of machinery and equipment, for delayed reconstruction. For example, although up to October 1945 heavy workers were entitled to official rations providing 3,757 calories a day, the greater part of their diet consisted of bread and cereals. Because of the great livestock shortage, there was scarcely any meat available on the ration. Fairly typical was the situation of 13,000 workers engaged in rebuilding the Ukraine's largest steel mill at Zaporozhie, who during April 1946 received only 750 grams of fat (about 26½ ounces) and less than two pounds of meat per person, a diet clearly inadequate for heavy labour.

262 Patients in a Kremenchug hospital received a diet composed chiefly
758 of bread, cabbage soup, and 15 grams of butter or lard, which provided about 1,200 calories daily - a level radically below the emergency subsistence rate of 1,900 calories defined by the Food and Agriculture Organization of the United Nations.

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1 Compare all calorie rates with the emergency subsistence food consumption levels defined by the Food and Agriculture Organization of the United Nations as the minima necessary to prevent serious malnutrition leading to disease and the danger of civil unrest. For European countries, these levels are as follows:

Emergency Subsistence Calorie Intake

Category	Calories per day	Category	Calories per day
0 - 2 years	1,000	Normal consumers (male)	1,900
3 - 5 "	1,250	Sedentary (female)	1,600
6 - 9 "	1,500	Moderate workers	2,000
10 - 17 years	2,000	Heavy workers	2,500
Pregnant and nursing women	2,000	Very heavy workers	3,000

1 [SIC - - ANALYST]

262 On the farms of the Ukraine the diet, although in some respects better, was for the most part, restricted and monotonous; bread and cabbage soup were the staple items; meat consumption was negligible and the intake of fats and oils, well below a pound a month per person.

262 731 433 The present situation compared with the spring of 1946 is much worse. UNRRA food deliveries to the Ukraine are all but completed. The 1946-47 harvest on which so many hopes were set, proved a dismal disappointment; and other areas of the Soviet Union, having been similarly affected by the drought, are not in a position to give assistance. Domestic stocks must therefore last until the next harvest; and the outlook until then is bleak.

434 262 On October 1, 1946, because of the shortage of domestically produced food and the imminent cessation of UNRRA supplies, Ukrainian rations for all categories of consumers had to be reduced. For most people this meant either that their cereal ration was cancelled, or that their bread quota was lowered or both.

For example, heavy workers, light workers, and employees, - although still receiving the same amount of bread, are no longer entitled to the cereal ration of 2.0, 1.2, and 0.8 kilograms a month respectively. Dependents fare even worse: not only have they lost their cereal ration, but in addition, their bread quota has been cut from 9 to 7.5 kilograms a month. The bread ration for children also has been cut from 12 to 9 kilograms, and their meat from 0.4 to 0.3 kilograms; however, they still receive the same cereal ration as before (0.8 kilograms a month).

Rations for mothers vary of course, according to the occupational category; but their special allowances remain the same, providing approximately 745 extra calories daily.

In terms of calories, these bread and cereal cuts have reduced the diet of heavy workers from 3,757 calories a day to 3,527; light workers are down from 1,820 to 1,682; employees from 1,236 to 1,144; dependents from 895 to 704; and children up to 12, from 1,209 to 973.

The following table shows the ration scales now in effect. Six out of about twelve groups have been chosen to show typical differentiations. Special groups - for example, tuberculosis patients in institutions - have not been included. It should be noted that dependents are defined as those who are not working and who have passed the age of 55.[1] Mothers usually work and draw, throughout their

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1 Previously the age was 45 years; but it has been raised in an effort to get all non-producers to work.

434 Mothers usually work and draw, throughout their
262 pregnancy and afterwards, their full occupational rations[1] plus the
745 special allowances indicated. If they do not work, they draw dependents' rations plus their special allowance.

[855] Children up to 14 includes infants from one to seven, who also receive special rations through milk kitchens, nurseries, nursery schools, and kindergartens. These amount to 9.0 litres of milk and 6.0 grams of fats monthly.

434 The employee category includes such occupational groups as office
262 workers, timekeepers, and caretakers. The light workers group includes railway workers, machine builders, etc. The heavy workers group includes moulders, steelworkers, and miners. The latter receive a further additional ration in the form of a hot meal if they do underground work.

(It must be emphasized that the amounts given in the table are official scales, which, even though reduced, cannot regularly be met. Throughout, the figures in brackets refer to scarce items which are authorized, but cannot be supplied.)

TABLE XXIX

Ukrainian Ration Scales from October 1, 1946
(in kilograms per month)

Rationed commodity	Consumer category: Heavy worker	Light worker	Employee	Dependent[1]	Children up to 14
Bread	36.0	18.0	12.0	7.5	9.0
Cereals	nil	nil	nil	nil	(0.8)
Sugar	(0.5)	(0.4)	(0.3)	(0.2)	0.3
Meat or fish	(3.2)	(1.8)	(1.2)	(0.5)	(0.4)
Fats	(0.9)	(0.4)	(0.3)	(0.2)	(0.3)
Butter (or substitute)	nil	nil	nil	nil	.06
Potatoes	(5.0)	"	"	"	nil
Vegetables	(3.0)	"	"	"	(2.0)
Milk, fresh, dried, or evaporated	nil	"	"	"	9.0 scarce
Vitamin juices	"	"	"	"	
Approximate daily calories from rations only	3,527	1,682	1,144	704	973 plus 204 infants

[736] In February 1947 the rations for dependents was again changed, and they are now authorized to receive only bread, 7.5 kilograms monthly.

Source: UNRRA Mission to the Ukraine, Kiev.

[1] [As of 1947 -- Analyst]

262 Expectant and nursing mothers are usually at work, and have standard
745 leaves with pay and special privileges; thus, if working, they receive
434 rations appropriate to the occupational group, plus special food allowances; and if not working, dependents' rations plus these allowances. The supplements are as follows, monthly: cereals, 1.2 kilograms; butter (or substitute), 0.8 kilograms; sugar 0.6 kilograms; vegetables, 2.0 kilograms; milk (fresh or dried) 12 litres. Their approximate calories from rations alone are, therefore:

If light workers	1,682 plus 512 -	2,194	calories daily
If employees	1,144 plus 512 -	1,656	" "
If dependents	704 plus 512 -	1,216	" "

In the last case it is almost possible to assume that the husband is well paid and will be able to buy products in the open market.

262 Even if the established ration scales for all groups could be met, they would not provide an adequate, balanced diet. Particularly the rations for women and children are very light in fat, first-class protein, and calcium. They provide less than half the low League of Nation's standard for daily full-cream milk requirements of the expectant mother. But even these inadequate scales are seldom supplied.

262 Since mid-October 1946, the honouring of ration cards has, because
434 of the increasing food shortages, become more and more irregular. In December 1946, for instance, large groups of persons in the Kiev area received only bread, sugar, and a few tins of vegetables on their cards. No meat, fish or fats were available. By the middle of January 1947, the situation had grown even more stringent, and only bread was supplied on the ration.

At the same time, the amount of food available off the ration has decreased almost to the vanishing point. Cereals and white bread have practically disappeared from the open market; and when they are available, the price is beyond the reach of the average person.

262 The effects of the poor diet are already to be seen. The people
181 generally show a noticeable lack of their former liveliness, energy and
164 cheerfulness. Moreover, according to the Medical Officer of the
369 UNRRA Mission to the Ukraine, clinical starvation has made its appearance in the smaller villages of the Republic: protein dropsy and avitaminosis are increasing; and among the townspeople there is great incidence of skin infections and respiratory and nasopharyngeal conditions.

645 In order to meet some of the medical aspects which may arise out of
744 the present food situation, the Ministry of Health has taken the follow-
262 ing steps.

645 744 262 (a) In the districts most affected by the poor crops of 1946, all children are to be fed by state feeding centres under the control of the Ministry of Health. (Normally, the Ministry of Education is in charge of feeding some of the school children; and other groups are fed in varying degrees by the Ministry of Health and trade union organizations.) However, it is hoped that now by establishing all child feeding arrangements under one Ministry, children of all ages and population groups will be fed as well as is possible. Transport is one of the limiting factors of this programme.

(b) Measures are being taken to recruit and equip special medical teams for use in areas where any widespread symptoms of starvation appear. These teams will attempt to ensure that the best possible use is made of such palliative measures (for example, special protein foods) as are available.

Summary

241 727 The Ukraine has often been called the granary of the Soviet Union. Before the war it produced all the food required for its own population; it helped to feed other regions of the U.S.S.R.; and it produced nine-tenths of the grain exported from the Soviet Union.

This favourable position was abruptly reversed by the war, which left the Ukraine, after Byelorussia, the most devastated section of Europe. In August 1945 when this Republic applied to UNRRA for relief assistance, the most urgently needed supplies were food.

731 649 262 UNRRA's major contribution to recovery in the Ukrainian Republic has been in furnishing 100 million dollars' worth of food - a considerable amount, but very small in relation to the need. Distributed among the urban population of about 27 million, the per capita proportion is almost insignificant. However, the foods delivered by UNRRA were those in shortest supply and those most necessary to sustain the people

Since the disastrous drought, the amount of food available from domestic production is exceedingly small. Not even the very low bread ration is assured. Moreover, UNRRA relief is drawing to a close; and food shipments since January 1 have been negligible. The mission in Kiev reports: "The cessation of relief supplies of meats, fish, milk, and fats at this time is nothing less than a tragedy."

There is no immediate prospect of improvement in the Ukrainian food situation. Other areas of the Soviet Union, having been similarly affected by the drought, are not in a position to give assistance.

262
734 Everything depends on this year's harvest (1947-48). Meanwhile, the next three or four months are expected to be the worst period since the famine of 1922. No people in Europe who suffered under German occupation and devastation will continue to suffer from hunger in 1947 as much as will the people of the Ukraine.

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[For bibliographical references on the Ukraine, see 17: UNRRA, RD1 Ukraine, cat. 116, footnotes entire source]